THE NATIONAL ACADEMIES PRESS

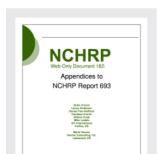
This PDF is available at http://nap.edu/22821

SHARE









Appendices to NCHRP Report 693

DETAILS

0 pages | null | PAPERBACK ISBN 978-0-309-43069-2 | DOI 10.17226/22821

BUY THIS BOOK

FIND RELATED TITLES

AUTHORS

Visit the National Academies Press at NAP.edu and login or register to get:

- Access to free PDF downloads of thousands of scientific reports
- 10% off the price of print titles
- Email or social media notifications of new titles related to your interests
- Special offers and discounts



Distribution, posting, or copying of this PDF is strictly prohibited without written permission of the National Academies Press. (Request Permission) Unless otherwise indicated, all materials in this PDF are copyrighted by the National Academy of Sciences.

ACKNOWLEDGMENT

This work was sponsored by the American Association of State Highway and Transportation Officials (AASHTO), in cooperation with the Federal Highway Administration, and was conducted in the National Cooperative Highway Research Program (NCHRP), which is administered by the Transportation Research Board (TRB) of the National Academies.

COPYRIGHT INFORMATION

Authors herein are responsible for the authenticity of their materials and for obtaining written permissions from publishers or persons who own the copyright to any previously published or copyrighted material used herein.

Cooperative Research Programs (CRP) grants permission to reproduce material in this publication for classroom and not-for-profit purposes. Permission is given with the understanding that none of the material will be used to imply TRB, AASHTO, FAA, FHWA, FMCSA, FTA, Transit Development Corporation, or AOC endorsement of a particular product, method, or practice. It is expected that those reproducing the material in this document for educational and not-for-profit uses will give appropriate acknowledgment of the source of any reprinted or reproduced material. For other uses of the material, request permission from CRP.

DISCLAIMER

The opinions and conclusions expressed or implied in this report are those of the researchers who performed the research. They are not necessarily those of the Transportation Research Board, the National Research Council, or the program sponsors.

The information contained in this document was taken directly from the submission of the author(s). This material has not been edited by TRB.

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

The **National Academy of Sciences** is a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. On the authority of the charter granted to it by the Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Ralph J. Cicerone is president of the National Academy of Sciences.

The National Academy of Engineering was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members, sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering also sponsors engineering programs aimed at meeting national needs, encourages education and research, and recognizes the superior achievements of engineers. Dr. Charles M. Vest is president of the National Academy of Engineering.

The Institute of Medicine was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences by its congressional charter to be an adviser to the federal government and, on its own initiative, to identify issues of medical care, research, and education. Dr. Harvey V. Fineberg is president of the Institute of Medicine.

The National Research Council was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both Academies and the Institute of Medicine. Dr. Ralph J. Cicerone and Dr. Charles M. Vest are chair and vice chair, respectively, of the National Research Council.

The **Transportation Research Board** is one of six major divisions of the National Research Council. The mission of the Transportation Research Board is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. The Board's varied activities annually engage about 7,000 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation. **www.TRB.org**

www.national-academies.org

CONTENTS

SOM Occupational Staffing Tables

		_				_		nal Change	-		
								Historical 2			
					_		-	storical 200			
II.	Appendix	B:	Region-	and	State	e-level	O	ccupational	Change	Sum	ımary:
Fore	ecasted 201	0, 20	15, 2020	•••••	•••••	•••••	•••••	•••••	•••••	•••••	B-1
								Forecasted 2			
								precasted 20			
			U					sted Renew	•	_	
occ.	Region-l	evel	Forecaste	ed Re	newa	l Syste	ms	Expanded	Occupation	nal (Change
	State-lev	el I	Forecasted	Ren	ewal	Systen	ns	Expanded	Occupation	nal (Change
IV.	Appendix I): Re	gion-level	Indu	stry S	Size and	l Gr	owth Estin	nates: 2010	-2020	0 D-1

Appendix A

Region- and State-level Occupational Change Summary: Historical 2005-2010

This appendix first presents the historical occupation data for SOM positions in each of the United States' four regions, which include the Northeast, Midwest, West, and South. The following table provides an overview of the specific states represented in each regional area.

States Included in Each Regional Area Used to Conduct Occupational Analysis								
Regions	State Areas							
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont							
Midwest Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, No Dakota, Ohio, South Dakota, Wisconsin								
West	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming							
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia							

Following the regional tables are the 50 state tables and the District of Columbia. These tables appear in alphabetical order.

Region-level Occupational Change Summary: Historical 2005–2010

Exhibit A-1 provides the occupational change summary from 2005-2010 for the Northeast region. The Northeast region includes: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

	Exhibit A-1 NORTHEAST- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	59,523	69,526	10,003	17%	Bachelor's degree			
49-9097	Signal and track switch repairers	4,857	5,295	438	9%	Moderate-term on- the-job training			
43-5031	Dispatchers	19,054	20,317	1,263	7%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	32,494	34,067	1,573	5%	Associate's degree			
11-3021	Computer and information systems managers	72,600	74,177	1,577	2%	Degree plus work experience			
17-2051	Civil engineers	52,111	52,400	289	1%	Bachelor's degree			
47-4051	Highway maintenance workers	36,097	36,541	444	1%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	9,045	9,050	5	0%	Associate's degree			
49-9042	Maintenance and repair workers, general	248,545	247,061	(1,484)	(1%)	Moderate-term on- the-job training			
53-6041	Traffic technicians	1,827	1,807	(20)	(1%)	Short-term on-the- job training			
17-3029	Engineering technicians, except drafters, all other	9,014	8,644	(370)	(4%)	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,234	2,122	(112)	(5%)	Postsecondary vocational award			
17-2071	Electrical engineers	32,834	31,068	(1,766)	(5%)	Bachelor's degree			
11-3071	Transportation, storage, and distribution managers	18,796	17,713	(1,083)	(6%)	Work experience in a related field			
17-3023	Electrical and electronic engineering technicians	31,974	29,751	(2,223)	(7%)	Associate's degree			
47-2111	Electricians	130,355	115,890	(14,465)	(11%)	Long-term on-the- job training			

The following table, Exhibit A-2, provides the occupational change summary from 2005-2010 for the Midwest region. The Midwest region includes: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

	Exhibit A-2 MIDWEST- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	60,617	69,639	9,022	15%	Bachelor's degree			
43-5031	Dispatchers	20,031	21,277	1,246	6%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	7,696	8,169	473	6%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	55,091	56,186	1,095	2%	Associate's degree			
17-3022	Civil engineering technicians	16,859	16,982	123	1%	Associate's degree			
47-4051	Highway maintenance workers	50,684	51,192	508	1%	Moderate-term on- the-job training			
11-3021	Computer and information systems managers	63,714	64,007	293	0%	Degree plus work experience			
17-2051	Civil engineers	49,102	49,147	45	0%	Bachelor's degree			
53-6041	Traffic technicians	744	738	(6)	(1%)	Short-term on-the- job training			
49-9042	Maintenance and repair workers, general	313,204	300,923	(12,281)	(4%)	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	24,736	23,212	(1,524)	(6%)	Work experience in a related field			
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,744	2,585	(159)	(6%)	Postsecondary vocational award			
17-2071	Electrical engineers	32,930	30,590	(2,340)	(7%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	29,007	26,991	(2,016)	(7%)	Associate's degree			

	Exhibit A-2 MIDWEST- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
17-3029	Engineering technicians, except drafters, all other	17,075	15,159	(1,916)	(11%)	Associate's degree			
47-2111	Electricians	180,188	152,172	(28,016)	(16%)	Long-term on-the- job training			

Exhibit A-3 provides the occupational change summary from 2005-2010 for the West region. The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

	Exhibit A-3 WEST- Historical Occupational Change Summary 2005-2010									
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level				
15-1081	Network systems and data communications analysts	73,995	88,349	14,354	19%	Bachelor's degree				
43-5031	Dispatchers	14,600	16,062	1,462	10%	Moderate-term on- the-job training				
49-9097	Signal and track switch repairers	7,380	7,918	538	7%	Moderate-term on- the-job training				
15-1099	Computer specialists, all other	67,849	71,925	4,076	6%	Associate's degree				
11-3021	Computer and information systems managers	69,048	71,660	2,612	4%	Degree plus work experience				
47-4051	Highway maintenance workers	17,675	18,310	635	4%	Moderate-term on- the-job training				
17-2051	Civil engineers	89,544	91,175	1,631	2%	Bachelor's degree				
17-3022	Civil engineering technicians	18,595	18,966	371	2%	Associate's degree				
53-6041	Traffic technicians	1,470	1,491	21	1%	Short-term on-the- job training				
17-3029	Engineering technicians, except drafters, all other	22,100	22,047	(53)	0%	Associate's degree				

	Exhibit A-3 WEST- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
49-9042	Maintenance and repair workers, general	277,835	277,973	138	0%	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	24,789	23,903	(886)	(4%)	Work experience in a related field			
17-2071	Electrical engineers	39,754	37,712	(2,042)	(5%)	Bachelor's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,846	2,714	(132)	(5%)	Postsecondary vocational award			
17-3023	Electrical and electronic engineering technicians	42,552	39,671	(2,881)	(7%)	Associate's degree			
47-2111	Electricians	163,993	142,760	(21,233)	(13%)	Long-term on-the- job training			

Exhibit A-4 provides the occupational change summary from 2005-2010 for the South region. The South region includes: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

	Exhibit A-4 SOUTH- Historical Occupational Change Summary 2005-2010									
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level				
15-1081	Network systems and data communications analysts	109,229	128,574	19,345	18%	Bachelor's degree				
49-9097	Signal and track switch repairers	11,771	13,167	1,396	12%	Moderate-term on- the-job training				
43-5031	Dispatchers	36,517	40,349	3,832	10%	Moderate-term on- the-job training				
15-1099	Computer specialists, all other	69,517	75,604	6,087	9%	Associate's degree				

	Exhibit A-4 SOUTH- Historical Occupational Change Summary 2005-2010									
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level				
11-3021	Computer and information systems managers	91,762	96,866	5,104	6%	Degree plus work experience				
17-2051	Civil engineers	105,381	109,648	4,267	4%	Bachelor's degree				
17-3022	Civil engineering technicians	35,964	37,335	1,371	4%	Associate's degree				
47-4051	Highway maintenance workers	33,573	34,833	1,260	4%	Moderate-term on- the-job training				
53-6041	Traffic technicians	2,758	2,856	98	4%	Short-term on-the- job training				
17-3029	Engineering technicians, except drafters, all other	23,414	24,169	755	3%	Associate's degree				
49-9042	Maintenance and repair workers, general	528,441	529,719	1,278	0%	Moderate-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	37,714	36,908	(806)	(2%)	Work experience in a related field				
17-2071	Electrical engineers	53,902	52,756	(1,146)	(2%)	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	6,320	6,192	(128)	(2%)	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	57,740	55,374	(2,366)	(4%)	Associate's degree				
47-2111	Electricians	284,529	253,186	(31,343)	(11%)	Long-term on-the- job training				

State-level Occupational Change Summary: Historical 2005–2010

	Exhibit A-5 ALABAMA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	2,631	2,996	365	14%	Bachelor's degree			
49-9097	Signal and track switch repairers	415	468	53	13%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	2,287	2,497	210	9%	Associate's degree			
43-5031	Dispatchers	2,341	2,540	199	9%	Moderate-term on- the-job training			
17-3029	Engineering technicians, except drafters, all other	1,123	1,187	64	6%	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	297	314	17	6%	Postsecondary vocational award			
11-3021	Computer and information systems managers	2,299	2,422	123	5%	Degree plus work experience			
17-2051	Civil engineers	4,784	4,970	186	4%	Bachelor's degree			
17-3022	Civil engineering technicians	1,848	1,921	73	4%	Associate's degree			
47-4051	Highway maintenance workers	3,226	3,342	116	4%	Moderate-term on- the-job training			
53-6041	Traffic technicians	65	67	2	3%	Short-term on-the- job training			
17-2071	Electrical engineers	3,447	3,430	(17)	0%	Bachelor's degree			
49-9042	Maintenance and repair workers, general	18,594	18,346	(248)	(1%)	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	1,001	980	(21)	(2%)	Work experience in a related field			
17-3023	Electrical and electronic engineering technicians	1,579	1,527	(52)	(3%)	Associate's degree			
47-2111	Electricians	11,809	10,540	(1,269)	(11%)	Long-term on-the- job training			

	Exhibit A-6 ALASKA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	460	563	103	22%	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	646	764	118	18%	Associate's degree			
43-5031	Dispatchers	326	373	47	14%	Moderate-term on- the-job training			
17-3029	Engineering technicians, except drafters, all other	416	467	51	12%	Associate's degree			
17-2071	Electrical engineers	612	682	70	11%	Bachelor's degree			
17-3022	Civil engineering technicians	314	347	33	11%	Associate's degree			
17-2051	Civil engineers	1,436	1,582	146	10%	Bachelor's degree			
49-9042	Maintenance and repair workers, general	3,891	4,277	386	10%	Moderate-term on- the-job training			
47-4051	Highway maintenance workers	115	125	10	9%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	74	80	6	8%	Moderate-term on- the-job training			
11-3021	Computer and information systems managers	424	455	31	7%	Degree plus work experience			
15-1099	Computer specialists, all other	561	589	28	5%	Associate's degree			
11-3071	Transportation, storage, and distribution managers	602	610	8	1%	Work experience in a related field			
49-2093	Electrical and electronics installers and repairers, transportation equipment	17	17	0	0%	Postsecondary vocational award			
47-2111	Electricians	2,663	2,620	(43)	(2%)	Long-term on-the- job training			
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training			

	Exhibit A-7 ARIZONA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	5,253	5,928	675	13%	Bachelor's degree			
43-5031	Dispatchers	1,652	1,825	173	10%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	2,528	2,764	236	9%	Associate's degree			
49-9097	Signal and track switch repairers	556	606	50	9%	Moderate-term on- the-job training			
11-3021	Computer and information systems managers	4,187	4,374	187	4%	Degree plus work experience			
17-3029	Engineering technicians, except drafters, all other	929	966	37	4%	Associate's degree			
47-4051	Highway maintenance workers	1,488	1,535	47	3%	Moderate-term on- the-job training			
53-6041	Traffic technicians	100	102	2	2%	Short-term on-the- job training			
17-3022	Civil engineering technicians	1,823	1,834	11	1%	Associate's degree			
49-9042	Maintenance and repair workers, general	27,563	27,839	276	1%	Moderate-term on- the-job training			
17-2051	Civil engineers	4,602	4,580	(22)	0%	Bachelor's degree			
11-3071	Transportation, storage, and distribution managers	1,959	1,932	(27)	(1%)	Work experience in a related field			
49-2093	Electrical and electronics installers and repairers, transportation equipment	165	161	(4)	(2%)	Postsecondary vocational award			
17-2071	Electrical engineers	4,625	4,370	(255)	(6%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	5,316	4,830	(486)	(9%)	Associate's degree			
47-2111	Electricians	14,757	12,334	(2,423)	(16%)	Long-term on-the- job training			

Exhibit A-8 ARKANSAS- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	2,623	2,993	370	14%	Bachelor's degree		
15-1099	Computer specialists, all other	688	760	72	10%	Associate's degree		
43-5031	Dispatchers	1,116	1,225	109	10%	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	402	438	36	9%	Associate's degree		
17-2051	Civil engineers	1,650	1,770	120	7%	Bachelor's degree		
47-4051	Highway maintenance workers	1,411	1,496	85	6%	Moderate-term on- the-job training		
53-6041	Traffic technicians	31	33	2	6%	Short-term on-the- job training		
11-3021	Computer and information systems managers	1,441	1,517	76	5%	Degree plus work experience		
49-9097	Signal and track switch repairers	309	325	16	5%	Moderate-term on- the-job training		
17-3029	Engineering technicians, except drafters, all other	287	297	10	3%	Associate's degree		
49-9042	Maintenance and repair workers, general	12,771	12,727	(44)	0%	Moderate-term on- the-job training		
47-2111	Electricians	6,571	6,425	(146)	(2%)	Long-term on-the- job training		
49-2093	Electrical and electronics installers and repairers, transportation equipment	178	168	(10)	(6%)	Postsecondary vocational award		
11-3071	Transportation, storage, and distribution managers	1,125	1,022	(103)	(9%)	Work experience in a related field		
17-3023	Electrical and electronic engineering technicians	1,076	978	(98)	(9%)	Associate's degree		
17-2071	Electrical engineers	722	649	(73)	(10%)	Bachelor's degree		

	Exhibit A-9 CALIFORNIA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	40,163	47,319	7,156	18%	Bachelor's degree		
43-5031	Dispatchers	5,763	6,235	472	8%	Moderate-term on- the-job training		
49-9097	Signal and track switch repairers	3,992	4,214	222	6%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	35,867	37,194	1,327	4%	Associate's degree		
47-4051	Highway maintenance workers	4,171	4,263	92	2%	Moderate-term on- the-job training		
11-3021	Computer and information systems managers	41,135	41,556	421	1%	Degree plus work experience		
17-3022	Civil engineering technicians	7,869	7,939	70	1%	Associate's degree		
53-6041	Traffic technicians	833	832	(1)	0%	Short-term on-the- job training		
17-2051	Civil engineers	44,780	44,399	(381)	(1%)	Bachelor's degree		
17-3029	Engineering technicians, except drafters, all other	11,083	10,835	(248)	(2%)	Associate's degree		
49-9042	Maintenance and repair workers, general	132,296	129,449	(2,847)	(2%)	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	12,764	12,003	(761)	(6%)	Work experience in a related field		
17-2071	Electrical engineers	19,303	17,785	(1,518)	(8%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	20,760	19,020	(1,740)	(8%)	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	1,278	1,169	(109)	(9%)	Postsecondary vocational award		
47-2111	Electricians	70,803	59,380	(11,423)	(16%)	Long-term on-the- job training		

	Exhibit A-10 COLORADO- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	6,364	7,567	1,203	19%	Bachelor's degree			
43-5031	Dispatchers	1,312	1,482	170	13%	Moderate-term on- the-job training			
17-2051	Civil engineers	8,198	9,006	808	10%	Bachelor's degree			
49-9097	Signal and track switch repairers	574	633	59	10%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	1,401	1,523	122	9%	Associate's degree			
47-4051	Highway maintenance workers	2,585	2,764	179	7%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	7,492	7,928	436	6%	Associate's degree			
53-6041	Traffic technicians	83	88	5	6%	Short-term on-the- job training			
11-3021	Computer and information systems managers	4,825	5,035	210	4%	Degree plus work experience			
17-3029	Engineering technicians, except drafters, all other	1,169	1,207	38	3%	Associate's degree			
49-9042	Maintenance and repair workers, general	23,009	23,103	94	0%	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	1,359	1,343	(16)	(1%)	Work experience in a related field			
17-2071	Electrical engineers	3,808	3,732	(76)	(2%)	Bachelor's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	207	203	(4)	(2%)	Postsecondary vocational award			
17-3023	Electrical and electronic engineering technicians	2,819	2,623	(196)	(7%)	Associate's degree			
47-2111	Electricians	16,565	14,392	(2,173)	(13%)	Long-term on-the- job training			

	Exhibit A-11 CONNECTICUT- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
49-9097	Signal and track switch repairers	341	380	39	11%	Moderate-term on- the-job training			
15-1081	Network systems and data communications analysts	4,284	4,704	420	10%	Bachelor's degree			
43-5031	Dispatchers	1,285	1,359	74	6%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	1,664	1,686	22	1%	Associate's degree			
11-3021	Computer and information systems managers	7,263	7,228	(35)	0%	Degree plus work experience			
47-4051	Highway maintenance workers	2,585	2,578	(7)	0%	Moderate-term on- the-job training			
49-9042	Maintenance and repair workers, general	11,698	11,664	(34)	0%	Moderate-term on- the-job training			
53-6041	Traffic technicians	45	45	0	0%	Short-term on-the- job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	137	134	(3)	(2%)	Postsecondary vocational award			
17-3022	Civil engineering technicians	620	592	(28)	(5%)	Associate's degree			
17-3029	Engineering technicians, except drafters, all other	581	553	(28)	(5%)	Associate's degree			
17-2051	Civil engineers	3,883	3,647	(236)	(6%)	Bachelor's degree			
11-3071	Transportation, storage, and distribution managers	1,499	1,390	(109)	(7%)	Work experience in a related field			
17-2071	Electrical engineers	2,109	1,909	(200)	(9%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	2,234	2,015	(219)	(10%)	Associate's degree			
47-2111	Electricians	9,218	8,285	(933)	(10%)	Long-term on-the- job training			

	Exhibit A-12 DELAWARE- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	881	1,031	150	17%	Bachelor's degree			
43-5031	Dispatchers	190	208	18	9%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	85	92	7	8%	Moderate-term on- the-job training			
47-4051	Highway maintenance workers	100	104	4	4%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	399	409	10	3%	Associate's degree			
17-3022	Civil engineering technicians	339	338	(1)	0%	Associate's degree			
17-3023	Electrical and electronic engineering technicians	414	412	(2)	0%	Associate's degree			
49-9042	Maintenance and repair workers, general	3,887	3,868	(19)	0%	Moderate-term on- the-job training			
17-2051	Civil engineers	1,093	1,049	(44)	(4%)	Bachelor's degree			
17-3029	Engineering technicians, except drafters, all other	123	116	(7)	(6%)	Associate's degree			
11-3021	Computer and information systems managers	1,672	1,534	(138)	(8%)	Degree plus work experience			
17-2071	Electrical engineers	711	656	(55)	(8%)	Bachelor's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	50	46	(4)	(8%)	Postsecondary vocational award			
11-3071	Transportation, storage, and distribution managers	473	420	(53)	(11%)	Work experience in a related field			
47-2111	Electricians	2,622	2,060	(562)	(21%)	Long-term on-the- job training			
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training			

DI	Exhibit A-13 DISTRICT OF COLUMBIA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	2,535	3,011	476	19%	Bachelor's degree			
17-3022	Civil engineering technicians	194	217	23	12%	Associate's degree			
49-9097	Signal and track switch repairers	42	46	4	10%	Moderate-term on- the-job training			
53-6041	Traffic technicians	10	11	1	10%	Short-term on-the- job training			
17-2051	Civil engineers	1,400	1,510	110	8%	Bachelor's degree			
15-1099	Computer specialists, all other	9,246	9,722	476	5%	Associate's degree			
17-3029	Engineering technicians, except drafters, all other	623	647	24	4%	Associate's degree			
43-5031	Dispatchers	185	193	8	4%	Moderate-term on- the-job training			
49-9042	Maintenance and repair workers, general	6,735	7,023	288	4%	Moderate-term on- the-job training			
11-3021	Computer and information systems managers	3,099	3,176	77	2%	Degree plus work experience			
49-2093	Electrical and electronics installers and repairers, transportation equipment	48	49	1	2%	Postsecondary vocational award			
17-3023	Electrical and electronic engineering technicians	1,166	1,170	4	0%	Associate's degree			
47-4051	Highway maintenance workers	102	102	0	0%	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	527	510	(17)	(3%)	Work experience in a related field			
17-2071	Electrical engineers	1,191	1,155	(36)	(3%)	Bachelor's degree			
47-2111	Electricians	1,865	1,646	(219)	(12%)	Long-term on-the- job training			

	Exhibit A-14 FLORIDA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
49-9097	Signal and track switch repairers	2,110	2,357	247	12%	Moderate-term on- the-job training			
15-1081	Network systems and data communications analysts	21,892	24,362	2,470	11%	Bachelor's degree			
43-5031	Dispatchers	5,802	6,239	437	8%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	6,447	6,743	296	5%	Associate's degree			
11-3021	Computer and information systems managers	8,308	8,475	167	2%	Degree plus work experience			
47-4051	Highway maintenance workers	2,863	2,900	37	1%	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	4,235	4,087	(148)	(3%)	Work experience in a related field			
49-9042	Maintenance and repair workers, general	80,780	77,655	(3,125)	(4%)	Moderate-term on- the-job training			
53-6041	Traffic technicians	346	333	(13)	(4%)	Short-term on-the- job training			
17-3029	Engineering technicians, except drafters, all other	2,806	2,678	(128)	(5%)	Associate's degree			
17-2051	Civil engineers	18,419	17,261	(1,158)	(6%)	Bachelor's degree			
17-3022	Civil engineering technicians	4,796	4,485	(311)	(6%)	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	1,090	1,012	(78)	(7%)	Postsecondary vocational award			
17-2071	Electrical engineers	7,992	7,261	(731)	(9%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	10,585	9,089	(1,496)	(14%)	Associate's degree			
47-2111	Electricians	48,076	34,788	(13,288)	(28%)	Long-term on-the- job training			

	Exhibit A-15 GEORGIA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	8,592	9,888	1,296	15%	Bachelor's degree			
49-9097	Signal and track switch repairers	975	1,126	151	15%	Moderate-term on- the-job training			
43-5031	Dispatchers	3,344	3,749	405	12%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	4,365	4,615	250	6%	Associate's degree			
47-4051	Highway maintenance workers	2,299	2,412	113	5%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	1,397	1,454	57	4%	Associate's degree			
53-6041	Traffic technicians	270	282	12	4%	Short-term on-the- job training			
17-2051	Civil engineers	7,695	7,962	267	3%	Bachelor's degree			
17-3029	Engineering technicians, except drafters, all other	1,008	1,029	21	2%	Associate's degree			
11-3021	Computer and information systems managers	10,638	10,607	(31)	0%	Degree plus work experience			
11-3071	Transportation, storage, and distribution managers	3,244	3,132	(112)	(3%)	Work experience in a related field			
49-9042	Maintenance and repair workers, general	48,623	47,014	(1,609)	(3%)	Moderate-term on- the-job training			
17-2071	Electrical engineers	3,194	3,073	(121)	(4%)	Bachelor's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	507	488	(19)	(4%)	Postsecondary vocational award			
17-3023	Electrical and electronic engineering technicians	3,912	3,665	(247)	(6%)	Associate's degree			
47-2111	Electricians	22,057	18,434	(3,623)	(16%)	Long-term on-the- job training			

Exhibit A-16 HAWAII- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	1,422	1,692	270	19%	Bachelor's degree		
49-9097	Signal and track switch repairers	132	149	17	13%	Moderate-term on- the-job training		
43-5031	Dispatchers	231	255	24	10%	Moderate-term on- the-job training		
17-3029	Engineering technicians, except drafters, all other	507	541	34	7%	Associate's degree		
15-1099	Computer specialists, all other	1,181	1,247	66	6%	Associate's degree		
17-2071	Electrical engineers	593	629	36	6%	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	66	69	3	5%	Postsecondary vocational award		
17-2051	Civil engineers	1,924	1,990	66	3%	Bachelor's degree		
53-6041	Traffic technicians	40	41	1	3%	Short-term on-the- job training		
11-3021	Computer and information systems managers	592	603	11	2%	Degree plus work experience		
17-3023	Electrical and electronic engineering technicians	514	523	9	2%	Associate's degree		
17-3022	Civil engineering technicians	142	144	2	1%	Associate's degree		
47-4051	Highway maintenance workers	328	332	4	1%	Moderate-term on- the-job training		
47-2111	Electricians	3,128	3,125	(3)	0%	Long-term on-the- job training		
49-9042	Maintenance and repair workers, general	6,981	6,796	(185)	(3%)	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	519	475	(44)	(8%)	Work experience in a related field		

Exhibit A-17 IDAHO- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	1,237	1,690	453	37%	Bachelor's degree	
49-9097	Signal and track switch repairers	171	191	20	12%	Moderate-term on- the-job training	
43-5031	Dispatchers	394	434	40	10%	Moderate-term on- the-job training	
17-2051	Civil engineers	977	1,039	62	6%	Bachelor's degree	
17-3022	Civil engineering technicians	505	523	18	4%	Associate's degree	
15-1099	Computer specialists, all other	1,210	1,246	36	3%	Associate's degree	
47-4051	Highway maintenance workers	1,089	1,125	36	3%	Moderate-term on- the-job training	
49-9042	Maintenance and repair workers, general	5,875	6,075	200	3%	Moderate-term on- the-job training	
11-3071	Transportation, storage, and distribution managers	684	691	7	1%	Work experience in a related field	
11-3021	Computer and information systems managers	1,032	1,030	(2)	0%	Degree plus work experience	
49-2093	Electrical and electronics installers and repairers, transportation equipment	50	50	0	0%	Postsecondary vocational award	
53-6041	Traffic technicians	15	15	0	0%	Short-term on-the- job training	
17-3029	Engineering technicians, except drafters, all other	899	855	(44)	(5%)	Associate's degree	
47-2111	Electricians	4,612	3,974	(638)	(14%)	Long-term on-the- job training	
17-3023	Electrical and electronic engineering technicians	1,323	1,082	(241)	(18%)	Associate's degree	
17-2071	Electrical engineers	1,888	1,531	(357)	(19%)	Bachelor's degree	

	Exhibit A-18 ILLINOIS- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	10,025	11,376	1,351	13%	Bachelor's degree		
43-5031	Dispatchers	3,511	3,771	260	7%	Moderate-term on- the-job training		
49-9097	Signal and track switch repairers	1,605	1,673	68	4%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	15,794	15,944	150	1%	Associate's degree		
17-2051	Civil engineers	8,135	8,177	42	1%	Bachelor's degree		
17-3022	Civil engineering technicians	1,761	1,778	17	1%	Associate's degree		
47-4051	Highway maintenance workers	6,515	6,600	85	1%	Moderate-term on- the-job training		
53-6041	Traffic technicians	99	100	1	1%	Short-term on-the- job training		
11-3021	Computer and information systems managers	15,301	15,230	(71)	0%	Degree plus work experience		
49-9042	Maintenance and repair workers, general	56,040	54,648	(1,392)	(2%)	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	5,183	4,900	(283)	(5%)	Work experience in a related field		
17-3029	Engineering technicians, except drafters, all other	2,887	2,688	(199)	(7%)	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	784	732	(52)	(7%)	Postsecondary vocational award		
17-2071	Electrical engineers	5,149	4,710	(439)	(9%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	4,653	4,207	(446)	(10%)	Associate's degree		
47-2111	Electricians	33,778	28,266	(5,512)	(16%)	Long-term on-the- job training		

	Exhibit A-19 INDIANA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	4,475	5,421	946	21%	Bachelor's degree			
15-1099	Computer specialists, all other	2,370	2,597	227	10%	Associate's degree			
43-5031	Dispatchers	1,797	1,949	152	8%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	864	918	54	6%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	697	730	33	5%	Associate's degree			
11-3021	Computer and information systems managers	4,041	4,189	148	4%	Degree plus work experience			
17-2051	Civil engineers	3,615	3,710	95	3%	Bachelor's degree			
47-4051	Highway maintenance workers	4,633	4,745	112	2%	Moderate-term on- the-job training			
53-6041	Traffic technicians	65	66	1	2%	Short-term on-the- job training			
49-9042	Maintenance and repair workers, general	38,465	36,771	(1,694)	(4%)	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	2,326	2,205	(121)	(5%)	Work experience in a related field			
17-3023	Electrical and electronic engineering technicians	3,447	3,269	(178)	(5%)	Associate's degree			
17-3029	Engineering technicians, except drafters, all other	1,389	1,326	(63)	(5%)	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	215	201	(14)	(7%)	Postsecondary vocational award			
17-2071	Electrical engineers	2,885	2,668	(217)	(8%)	Bachelor's degree			
47-2111	Electricians	17,149	14,688	(2,461)	(14%)	Long-term on-the- job training			

	Exhibit A-20 IOWA- Historical Occupational Change Summary 2005-2010						
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	1,927	2,307	380	20%	Bachelor's degree	
15-1099	Computer specialists, all other	1,420	1,541	121	9%	Associate's degree	
43-5031	Dispatchers	831	898	67	8%	Moderate-term on- the-job training	
11-3021	Computer and information systems managers	2,270	2,419	149	7%	Degree plus work experience	
17-2051	Civil engineers	1,789	1,892	103	6%	Bachelor's degree	
17-2071	Electrical engineers	1,319	1,395	76	6%	Bachelor's degree	
17-3022	Civil engineering technicians	802	853	51	6%	Associate's degree	
53-6041	Traffic technicians	41	43	2	5%	Short-term on-the- job training	
49-9097	Signal and track switch repairers	366	382	16	4%	Moderate-term on- the-job training	
17-3023	Electrical and electronic engineering technicians	1,438	1,483	45	3%	Associate's degree	
47-4051	Highway maintenance workers	3,687	3,784	97	3%	Moderate-term on- the-job training	
17-3029	Engineering technicians, except drafters, all other	356	362	6	2%	Associate's degree	
49-9042	Maintenance and repair workers, general	14,553	14,588	35	0%	Moderate-term on- the-job training	
11-3071	Transportation, storage, and distribution managers	1,101	1,074	(27)	(2%)	Work experience in a related field	
47-2111	Electricians	8,086	7,799	(287)	(4%)	Long-term on-the- job training	
49-2093	Electrical and electronics installers and repairers, transportation equipment	88	84	(4)	(5%)	Postsecondary vocational award	

Exhibit A-21 KANSAS- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	2,530	2,970	440	17%	Bachelor's degree	
43-5031	Dispatchers	1,327	1,462	135	10%	Moderate-term on- the-job training	
11-3021	Computer and information systems managers	2,263	2,369	106	5%	Degree plus work experience	
17-2051	Civil engineers	2,397	2,516	119	5%	Bachelor's degree	
17-3022	Civil engineering technicians	1,361	1,435	74	5%	Associate's degree	
49-9097	Signal and track switch repairers	327	342	15	5%	Moderate-term on- the-job training	
15-1099	Computer specialists, all other	1,344	1,396	52	4%	Associate's degree	
47-4051	Highway maintenance workers	1,544	1,605	61	4%	Moderate-term on- the-job training	
53-6041	Traffic technicians	48	50	2	4%	Short-term on-the- job training	
17-2071	Electrical engineers	1,580	1,633	53	3%	Bachelor's degree	
17-3029	Engineering technicians, except drafters, all other	379	390	11	3%	Associate's degree	
49-9042	Maintenance and repair workers, general	12,778	13,074	296	2%	Moderate-term on- the-job training	
47-2111	Electricians	6,670	6,721	51	1%	Long-term on-the- job training	
17-3023	Electrical and electronic engineering technicians	1,344	1,346	2	0%	Associate's degree	
11-3071	Transportation, storage, and distribution managers	924	914	(10)	(1%)	Work experience in a related field	
49-2093	Electrical and electronics installers and repairers, transportation equipment	118	115	(3)	(3%)	Postsecondary vocational award	

	Exhibit A-22 KENTUCKY- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	3,099	3,830	731	24%	Bachelor's degree		
49-9097	Signal and track switch repairers	386	428	42	11%	Moderate-term on- the-job training		
11-3021	Computer and information systems managers	2,525	2,750	225	9%	Degree plus work experience		
15-1099	Computer specialists, all other	1,668	1,819	151	9%	Associate's degree		
43-5031	Dispatchers	1,443	1,555	112	8%	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	1,121	1,135	14	1%	Associate's degree		
47-4051	Highway maintenance workers	2,305	2,337	32	1%	Moderate-term on- the-job training		
17-2051	Civil engineers	2,696	2,685	(11)	0%	Bachelor's degree		
53-6041	Traffic technicians	68	67	(1)	(1%)	Short-term on-the- job training		
49-9042	Maintenance and repair workers, general	19,909	19,537	(372)	(2%)	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	1,704	1,655	(49)	(3%)	Work experience in a related field		
17-3029	Engineering technicians, except drafters, all other	1,040	990	(50)	(5%)	Associate's degree		
17-2071	Electrical engineers	1,285	1,205	(80)	(6%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	1,036	970	(66)	(6%)	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	234	217	(17)	(7%)	Postsecondary vocational award		
47-2111	Electricians	12,133	10,294	(1,839)	(15%)	Long-term on-the- job training		

Exhibit A-23 LOUISIANA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	1,810	2,116	306	17%	Bachelor's degree	
17-2051	Civil engineers	3,741	4,332	591	16%	Bachelor's degree	
49-9097	Signal and track switch repairers	435	499	64	15%	Moderate-term on- the-job training	
17-2071	Electrical engineers	1,234	1,365	131	11%	Bachelor's degree	
17-3022	Civil engineering technicians	1,548	1,660	112	7%	Associate's degree	
43-5031	Dispatchers	1,487	1,579	92	6%	Moderate-term on- the-job training	
11-3021	Computer and information systems managers	1,589	1,627	38	2%	Degree plus work experience	
17-3029	Engineering technicians, except drafters, all other	1,766	1,803	37	2%	Associate's degree	
47-2111	Electricians	12,303	12,535	232	2%	Long-term on-the- job training	
49-9042	Maintenance and repair workers, general	29,165	29,678	513	2%	Moderate-term on- the-job training	
15-1099	Computer specialists, all other	1,953	1,972	19	1%	Associate's degree	
17-3023	Electrical and electronic engineering technicians	2,152	2,173	21	1%	Associate's degree	
47-4051	Highway maintenance workers	1,342	1,355	13	1%	Moderate-term on- the-job training	
53-6041	Traffic technicians	85	86	1	1%	Short-term on-the- job training	
49-2093	Electrical and electronics installers and repairers, transportation equipment	495	495	0	0%	Postsecondary vocational award	
11-3071	Transportation, storage, and distribution managers	1,563	1,523	(40)	(3%)	Work experience in a related field	

Exhibit A-24 MAINE- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1099	Computer specialists, all other	515	554	39	8%	Associate's degree	
17-3029	Engineering technicians, except drafters, all other	635	660	25	4%	Associate's degree	
43-5031	Dispatchers	694	725	31	4%	Moderate-term on- the-job training	
11-3021	Computer and information systems managers	935	950	15	2%	Degree plus work experience	
17-2051	Civil engineers	1,028	1,031	3	0%	Bachelor's degree	
17-3022	Civil engineering technicians	425	427	2	0%	Associate's degree	
47-4051	Highway maintenance workers	1,664	1,654	(10)	(1%)	Moderate-term on- the-job training	
49-9042	Maintenance and repair workers, general	5,236	5,203	(33)	(1%)	Moderate-term on- the-job training	
11-3071	Transportation, storage, and distribution managers	638	621	(17)	(3%)	Work experience in a related field	
49-2093	Electrical and electronics installers and repairers, transportation equipment	121	117	(4)	(3%)	Postsecondary vocational award	
17-2071	Electrical engineers	455	430	(25)	(5%)	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	454	422	(32)	(7%)	Associate's degree	
47-2111	Electricians	4,358	3,771	(587)	(13%)	Long-term on-the- job training	
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training	

Exhibit A-25 MARYLAND- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	9,999	12,321	2,322	23%	Bachelor's degree	
49-9097	Signal and track switch repairers	558	629	71	13%	Moderate-term on- the-job training	
43-5031	Dispatchers	1,428	1,552	124	9%	Moderate-term on- the-job training	
15-1099	Computer specialists, all other	10,686	11,436	750	7%	Associate's degree	
11-3021	Computer and information systems managers	8,094	8,557	463	6%	Degree plus work experience	
17-3029	Engineering technicians, except drafters, all other	2,922	3,069	147	5%	Associate's degree	
17-2051	Civil engineers	7,393	7,705	312	4%	Bachelor's degree	
17-3022	Civil engineering technicians	2,087	2,147	60	3%	Associate's degree	
53-6041	Traffic technicians	119	122	3	3%	Short-term on-the- job training	
47-4051	Highway maintenance workers	1,880	1,923	43	2%	Moderate-term on- the-job training	
17-2071	Electrical engineers	4,146	4,141	(5)	0%	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	4,335	4,280	(55)	(1%)	Associate's degree	
49-9042	Maintenance and repair workers, general	23,990	23,766	(224)	(1%)	Moderate-term on- the-job training	
11-3071	Transportation, storage, and distribution managers	1,893	1,817	(76)	(4%)	Work experience in a related field	
49-2093	Electrical and electronics installers and repairers, transportation equipment	217	201	(16)	(7%)	Postsecondary vocational award	
47-2111	Electricians	19,588	16,814	(2,774)	(14%)	Long-term on-the- job training	

Exhibit A-26 MASSACHUSETTS- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	7,364	8,801	1,437	20%	Bachelor's degree	
49-9097	Signal and track switch repairers	590	646	56	9%	Moderate-term on- the-job training	
43-5031	Dispatchers	2,636	2,836	200	8%	Moderate-term on- the-job training	
15-1099	Computer specialists, all other	5,513	5,828	315	6%	Associate's degree	
11-3021	Computer and information systems managers	12,463	12,894	431	3%	Degree plus work experience	
47-4051	Highway maintenance workers	2,846	2,927	81	3%	Moderate-term on- the-job training	
17-3022	Civil engineering technicians	749	767	18	2%	Associate's degree	
17-2051	Civil engineers	9,161	9,125	(36)	0%	Bachelor's degree	
53-6041	Traffic technicians	146	146	0	0%	Short-term on-the- job training	
17-3029	Engineering technicians, except drafters, all other	962	953	(9)	(1%)	Associate's degree	
49-9042	Maintenance and repair workers, general	24,181	23,634	(547)	(2%)	Moderate-term on- the-job training	
17-2071	Electrical engineers	8,111	7,631	(480)	(6%)	Bachelor's degree	
11-3071	Transportation, storage, and distribution managers	1,676	1,557	(119)	(7%)	Work experience in a related field	
17-3023	Electrical and electronic engineering technicians	8,680	8,054	(626)	(7%)	Associate's degree	
49-2093	Electrical and electronics installers and repairers, transportation equipment	586	545	(41)	(7%)	Postsecondary vocational award	
47-2111	Electricians	16,912	13,784	(3,128)	(18%)	Long-term on-the- job training	

	Exhibit A-27 MICHIGAN- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
49-9097	Signal and track switch repairers	889	993	104	12%	Moderate-term on- the-job training		
15-1081	Network systems and data communications analysts	8,129	8,872	743	9%	Bachelor's degree		
43-5031	Dispatchers	2,333	2,256	(77)	(3%)	Moderate-term on- the-job training		
47-4051	Highway maintenance workers	3,455	3,321	(134)	(4%)	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	9,450	8,945	(505)	(5%)	Associate's degree		
11-3021	Computer and information systems managers	7,966	7,281	(685)	(9%)	Degree plus work experience		
53-6041	Traffic technicians	120	109	(11)	(9%)	Short-term on-the- job training		
17-2051	Civil engineers	7,860	7,065	(795)	(10%)	Bachelor's degree		
49-9042	Maintenance and repair workers, general	41,129	36,980	(4,149)	(10%)	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	2,746	2,401	(345)	(13%)	Associate's degree		
17-3023	Electrical and electronic engineering technicians	5,067	4,426	(641)	(13%)	Associate's degree		
11-3071	Transportation, storage, and distribution managers	3,094	2,674	(420)	(14%)	Work experience in a related field		
17-2071	Electrical engineers	6,061	4,996	(1,065)	(18%)	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	109	88	(21)	(19%)	Postsecondary vocational award		
17-3029	Engineering technicians, except drafters, all other	5,239	3,986	(1,253)	(24%)	Associate's degree		
47-2111	Electricians	26,499	20,159	(6,340)	(24%)	Long-term on-the- job training		

	Exhibit A-28 MINNESOTA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	6,635	7,660	1,025	15%	Bachelor's degree		
43-5031	Dispatchers	1,406	1,508	102	7%	Moderate-term on- the-job training		
49-9097	Signal and track switch repairers	599	634	35	6%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	8,653	8,976	323	4%	Associate's degree		
17-3022	Civil engineering technicians	2,756	2,798	42	2%	Associate's degree		
11-3021	Computer and information systems managers	9,445	9,566	121	1%	Degree plus work experience		
47-4051	Highway maintenance workers	4,718	4,768	50	1%	Moderate-term on- the-job training		
49-9042	Maintenance and repair workers, general	18,992	19,116	124	1%	Moderate-term on- the-job training		
17-2051	Civil engineers	4,036	4,032	(4)	0%	Bachelor's degree		
53-6041	Traffic technicians	75	75	0	0%	Short-term on-the- job training		
17-2071	Electrical engineers	4,037	3,905	(132)	(3%)	Bachelor's degree		
17-3029	Engineering technicians, except drafters, all other	1,356	1,304	(52)	(4%)	Associate's degree		
11-3071	Transportation, storage, and distribution managers	2,081	1,967	(114)	(5%)	Work experience in a related field		
17-3023	Electrical and electronic engineering technicians	3,238	3,020	(218)	(7%)	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	157	135	(22)	(14%)	Postsecondary vocational award		
47-2111	Electricians	14,532	11,774	(2,758)	(19%)	Long-term on-the- job training		

	Exhibit A-29 MISSISSIPPI- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	892	1,009	117	13%	Bachelor's degree		
15-1099	Computer specialists, all other	680	741	61	9%	Associate's degree		
43-5031	Dispatchers	1,083	1,181	98	9%	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	986	1,053	67	7%	Associate's degree		
17-2051	Civil engineers	1,996	2,117	121	6%	Bachelor's degree		
49-9097	Signal and track switch repairers	327	347	20	6%	Moderate-term on- the-job training		
53-6041	Traffic technicians	45	47	2	4%	Short-term on-the- job training		
11-3021	Computer and information systems managers	1,070	1,107	37	3%	Degree plus work experience		
47-4051	Highway maintenance workers	2,299	2,365	66	3%	Moderate-term on- the-job training		
17-2071	Electrical engineers	981	994	13	1%	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	1,132	1,144	12	1%	Associate's degree		
17-3029	Engineering technicians, except drafters, all other	625	634	9	1%	Associate's degree		
47-2111	Electricians	6,727	6,793	66	1%	Long-term on-the- job training		
49-9042	Maintenance and repair workers, general	14,041	14,135	94	1%	Moderate-term on- the-job training		
49-2093	Electrical and electronics installers and repairers, transportation equipment	180	179	(1)	(1%)	Postsecondary vocational award		
11-3071	Transportation, storage, and distribution managers	927	905	(22)	(2%)	Work experience in a related field		

	Exhibit A-30 MISSOURI- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	5,274	5,856	582	11%	Bachelor's degree		
43-5031	Dispatchers	2,235	2,483	248	11%	Moderate-term on- the-job training		
49-9097	Signal and track switch repairers	627	675	48	8%	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	1,744	1,871	127	7%	Associate's degree		
17-2051	Civil engineers	5,256	5,575	319	6%	Bachelor's degree		
53-6041	Traffic technicians	79	82	3	4%	Short-term on-the- job training		
47-4051	Highway maintenance workers	5,916	6,105	189	3%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	4,785	4,896	111	2%	Associate's degree		
11-3021	Computer and information systems managers	5,214	5,275	61	1%	Degree plus work experience		
17-2071	Electrical engineers	2,468	2,455	(13)	(1%)	Bachelor's degree		
49-9042	Maintenance and repair workers, general	29,756	29,316	(440)	(1%)	Moderate-term on- the-job training		
49-2093	Electrical and electronics installers and repairers, transportation equipment	287	282	(5)	(2%)	Postsecondary vocational award		
17-3029	Engineering technicians, except drafters, all other	638	620	(18)	(3%)	Associate's degree		
17-3023	Electrical and electronic engineering technicians	1,906	1,830	(76)	(4%)	Associate's degree		
11-3071	Transportation, storage, and distribution managers	1,986	1,892	(94)	(5%)	Work experience in a related field		
47-2111	Electricians	15,164	13,178	(1,986)	(13%)	Long-term on-the- job training		

	Exhibit A-31 MONTANA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	712	863	151	21%	Bachelor's degree			
11-3021	Computer and information systems managers	371	415	44	12%	Degree plus work experience			
15-1099	Computer specialists, all other	557	611	54	10%	Associate's degree			
43-5031	Dispatchers	506	555	49	10%	Moderate-term on- the-job training			
17-3029	Engineering technicians, except drafters, all other	177	189	12	7%	Associate's degree			
49-9042	Maintenance and repair workers, general	4,556	4,811	255	6%	Moderate-term on- the-job training			
17-2071	Electrical engineers	363	380	17	5%	Bachelor's degree			
17-2051	Civil engineers	1,229	1,278	49	4%	Bachelor's degree			
17-3022	Civil engineering technicians	490	508	18	4%	Associate's degree			
17-3023	Electrical and electronic engineering technicians	352	367	15	4%	Associate's degree			
47-4051	Highway maintenance workers	376	387	11	3%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	153	155	2	1%	Moderate-term on- the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	59	59	0	0%	Postsecondary vocational award			
53-6041	Traffic technicians	13	13	0	0%	Short-term on-the- job training			
11-3071	Transportation, storage, and distribution managers	250	245	(5)	(2%)	Work experience in a related field			
47-2111	Electricians	2,861	2,733	(128)	(4%)	Long-term on-the- job training			

	Exhibit A-32 NEBRASKA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	2,077	2,433	356	17%	Bachelor's degree			
17-2051	Civil engineers	1,677	1,827	150	9%	Bachelor's degree			
15-1099	Computer specialists, all other	773	833	60	8%	Associate's degree			
43-5031	Dispatchers	640	693	53	8%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	938	1,001	63	7%	Associate's degree			
11-3021	Computer and information systems managers	1,355	1,406	51	4%	Degree plus work experience			
47-4051	Highway maintenance workers	2,603	2,675	72	3%	Moderate-term on- the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	280	288	8	3%	Postsecondary vocational award			
49-9042	Maintenance and repair workers, general	8,154	8,411	257	3%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	355	364	9	3%	Moderate-term on- the-job training			
47-2111	Electricians	5,560	5,660	100	2%	Long-term on-the- job training			
17-3029	Engineering technicians, except drafters, all other	155	156	1	1%	Associate's degree			
53-6041	Traffic technicians	11	11	0	0%	Short-term on-the- job training			
11-3071	Transportation, storage, and distribution managers	761	740	(21)	(3%)	Work experience in a related field			
17-2071	Electrical engineers	483	465	(18)	(4%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	442	418	(24)	(5%)	Associate's degree			

	Exhibit A-33 NEVADA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
49-9097	Signal and track switch repairers	206	243	37	18%	Moderate-term on- the-job training			
15-1081	Network systems and data communications analysts	1,793	2,106	313	17%	Bachelor's degree			
43-5031	Dispatchers	524	593	69	13%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	1,673	1,773	100	6%	Associate's degree			
11-3021	Computer and information systems managers	1,280	1,335	55	4%	Degree plus work experience			
11-3071	Transportation, storage, and distribution managers	962	1,001	39	4%	Work experience in a related field			
47-4051	Highway maintenance workers	652	680	28	4%	Moderate-term on- the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	52	53	1	2%	Postsecondary vocational award			
17-3029	Engineering technicians, except drafters, all other	388	391	3	1%	Associate's degree			
53-6041	Traffic technicians	19	19	0	0%	Short-term on-the- job training			
49-9042	Maintenance and repair workers, general	13,316	13,029	(287)	(2%)	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	1,233	1,153	(80)	(6%)	Associate's degree			
17-2051	Civil engineers	3,332	2,994	(338)	(10%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	1,359	1,214	(145)	(11%)	Associate's degree			
17-2071	Electrical engineers	660	573	(87)	(13%)	Bachelor's degree			
47-2111	Electricians	8,198	6,341	(1,857)	(23%)	Long-term on-the- job training			

	Exhibit A-34 NEW HAMPSHIRE- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	1,284	1,558	274	21%	Bachelor's degree			
49-9097	Signal and track switch repairers	149	171	22	15%	Moderate-term on- the-job training			
43-5031	Dispatchers	797	883	86	11%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	199	208	9	5%	Associate's degree			
47-4051	Highway maintenance workers	1,602	1,690	88	5%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	1,180	1,220	40	3%	Associate's degree			
17-2051	Civil engineers	1,228	1,253	25	2%	Bachelor's degree			
11-3021	Computer and information systems managers	2,514	2,519	5	0%	Degree plus work experience			
49-9042	Maintenance and repair workers, general	5,104	5,054	(50)	(1%)	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	487	458	(29)	(6%)	Work experience in a related field			
17-2071	Electrical engineers	1,413	1,303	(110)	(8%)	Bachelor's degree			
17-3029	Engineering technicians, except drafters, all other	692	639	(53)	(8%)	Associate's degree			
17-3023	Electrical and electronic engineering technicians	973	880	(93)	(10%)	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	39	35	(4)	(10%)	Postsecondary vocational award			
47-2111	Electricians	3,602	3,203	(399)	(11%)	Long-term on-the- job training			
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training			

	Exhibit A-35 NEW JERSEY- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	11,740	13,548	1,808	15%	Bachelor's degree		
49-9097	Signal and track switch repairers	680	753	73	11%	Moderate-term on- the-job training		
43-5031	Dispatchers	3,262	3,544	282	9%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	9,142	9,405	263	3%	Associate's degree		
11-3021	Computer and information systems managers	14,350	14,494	144	1%	Degree plus work experience		
47-4051	Highway maintenance workers	2,086	2,101	15	1%	Moderate-term on- the-job training		
53-6041	Traffic technicians	215	217	2	1%	Short-term on-the- job training		
17-2051	Civil engineers	7,808	7,647	(161)	(2%)	Bachelor's degree		
49-9042	Maintenance and repair workers, general	35,605	34,328	(1,277)	(4%)	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	1,485	1,407	(78)	(5%)	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	328	311	(17)	(5%)	Postsecondary vocational award		
11-3071	Transportation, storage, and distribution managers	4,740	4,405	(335)	(7%)	Work experience in a related field		
17-3029	Engineering technicians, except drafters, all other	1,266	1,174	(92)	(7%)	Associate's degree		
17-2071	Electrical engineers	4,142	3,801	(341)	(8%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	3,488	3,184	(304)	(9%)	Associate's degree		
47-2111	Electricians	19,779	16,357	(3,422)	(17%)	Long-term on-the- job training		

Exhibit A-36 NEW MEXICO- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	1,054	1,284	230	22%	Bachelor's degree	
15-1099	Computer specialists, all other	1,043	1,158	115	11%	Associate's degree	
43-5031	Dispatchers	616	669	53	9%	Moderate-term on- the-job training	
11-3021	Computer and information systems managers	1,067	1,152	85	8%	Degree plus work experience	
17-3029	Engineering technicians, except drafters, all other	1,039	1,113	74	7%	Associate's degree	
49-9097	Signal and track switch repairers	175	188	13	7%	Moderate-term on- the-job training	
49-9042	Maintenance and repair workers, general	8,909	9,160	251	3%	Moderate-term on- the-job training	
53-6041	Traffic technicians	71	72	1	1%	Short-term on-the- job training	
11-3071	Transportation, storage, and distribution managers	464	460	(4)	(1%)	Work experience in a related field	
17-2051	Civil engineers	2,061	2,031	(30)	(1%)	Bachelor's degree	
17-2071	Electrical engineers	1,156	1,150	(6)	(1%)	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	2,003	1,979	(24)	(1%)	Associate's degree	
49-2093	Electrical and electronics installers and repairers, transportation equipment	100	96	(4)	(4%)	Postsecondary vocational award	
17-3022	Civil engineering technicians	756	710	(46)	(6%)	Associate's degree	
47-2111	Electricians	4,389	4,117	(272)	(6%)	Long-term on-the- job training	
47-4051	Highway maintenance workers	846	797	(49)	(6%)	Moderate-term on- the-job training	

	Exhibit A-37 NEW YORK- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	23,602	27,315	3,713	16%	Bachelor's degree		
49-9097	Signal and track switch repairers	1,800	1,930	130	7%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	6,749	7,162	413	6%	Associate's degree		
43-5031	Dispatchers	6,145	6,466	321	5%	Moderate-term on- the-job training		
17-2051	Civil engineers	14,617	15,125	508	3%	Bachelor's degree		
17-3022	Civil engineering technicians	2,174	2,231	57	3%	Associate's degree		
11-3021	Computer and information systems managers	24,226	24,673	447	2%	Degree plus work experience		
47-4051	Highway maintenance workers	14,002	14,105	103	1%	Moderate-term on- the-job training		
49-9042	Maintenance and repair workers, general	95,416	96,655	1,239	1%	Moderate-term on- the-job training		
53-6041	Traffic technicians	1,295	1,273	(22)	(2%)	Short-term on-the- job training		
17-2071	Electrical engineers	9,920	9,591	(329)	(3%)	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	607	591	(16)	(3%)	Postsecondary vocational award		
11-3071	Transportation, storage, and distribution managers	5,438	5,099	(339)	(6%)	Work experience in a related field		
17-3029	Engineering technicians, except drafters, all other	2,574	2,416	(158)	(6%)	Associate's degree		
47-2111	Electricians	42,533	39,888	(2,645)	(6%)	Long-term on-the- job training		
17-3023	Electrical and electronic engineering technicians	8,149	7,614	(535)	(7%)	Associate's degree		

Exhibit A-38 NORTH CAROLINA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level	
15-1081	Network systems and data communications analysts	8,006	9,549	1,543	19%	Bachelor's degree	
49-9097	Signal and track switch repairers	895	1,034	139	16%	Moderate-term on- the-job training	
43-5031	Dispatchers	3,062	3,478	416	14%	Moderate-term on- the-job training	
15-1099	Computer specialists, all other	4,125	4,572	447	11%	Associate's degree	
47-4051	Highway maintenance workers	979	1,058	79	8%	Moderate-term on- the-job training	
53-6041	Traffic technicians	172	182	10	6%	Short-term on-the- job training	
11-3021	Computer and information systems managers	10,944	11,490	546	5%	Degree plus work experience	
17-3022	Civil engineering technicians	3,414	3,585	171	5%	Associate's degree	
17-2051	Civil engineers	6,523	6,799	276	4%	Bachelor's degree	
17-3029	Engineering technicians, except drafters, all other	978	1,007	29	3%	Associate's degree	
49-9042	Maintenance and repair workers, general	45,725	45,782	57	0%	Moderate-term on- the-job training	
17-2071	Electrical engineers	2,698	2,638	(60)	(2%)	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	3,020	2,946	(74)	(2%)	Associate's degree	
11-3071	Transportation, storage, and distribution managers	2,979	2,865	(114)	(4%)	Work experience in a related field	
49-2093	Electrical and electronics installers and repairers, transportation equipment	298	283	(15)	(5%)	Postsecondary vocational award	
47-2111	Electricians	22,155	19,277	(2,878)	(13%)	Long-term on-the- job training	

	Exhibit A-39 NORTH DAKOTA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
11-3021	Computer and information systems managers	437	515	78	18%	Degree plus work experience			
11-3071	Transportation, storage, and distribution managers	321	333	12	4%	Work experience in a related field			
15-1081	Network systems and data communications analysts	345	426	81	23%	Bachelor's degree			
15-1099	Computer specialists, all other	225	266	41	18%	Associate's degree			
17-2051	Civil engineers	640	742	102	16%	Bachelor's degree			
17-2071	Electrical engineers	225	255	30	13%	Bachelor's degree			
17-3022	Civil engineering technicians	412	472	60	15%	Associate's degree			
17-3023	Electrical and electronic engineering technicians	313	328	15	5%	Associate's degree			
17-3029	Engineering technicians, except drafters, all other	110	119	9	8%	Associate's degree			
43-5031	Dispatchers	192	209	17	9%	Moderate-term on- the-job training			
47-2111	Electricians	2,017	2,260	243	12%	Long-term on-the- job training			
47-4051	Highway maintenance workers	756	783	27	4%	Moderate-term on- the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	48	48	0	0%	Postsecondary vocational award			
49-9042	Maintenance and repair workers, general	2,694	2,867	173	6%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	118	121	3	3%	Moderate-term on- the-job training			
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training			

	Exhibit A-40 OHIO- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	11,686	13,533	1,847	16%	Bachelor's degree			
49-9097	Signal and track switch repairers	1,310	1,387	77	6%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	8,289	8,680	391	5%	Associate's degree			
43-5031	Dispatchers	4,063	4,226	163	4%	Moderate-term on- the-job training			
11-3021	Computer and information systems managers	9,560	9,781	221	2%	Degree plus work experience			
17-3022	Civil engineering technicians	2,016	1,970	(46)	(2%)	Associate's degree			
47-4051	Highway maintenance workers	10,281	10,096	(185)	(2%)	Moderate-term on- the-job training			
17-2051	Civil engineers	8,207	7,923	(284)	(3%)	Bachelor's degree			
53-6041	Traffic technicians	155	150	(5)	(3%)	Short-term on-the- job training			
11-3071	Transportation, storage, and distribution managers	4,701	4,378	(323)	(7%)	Work experience in a related field			
17-3023	Electrical and electronic engineering technicians	3,808	3,533	(275)	(7%)	Associate's degree			
17-2071	Electrical engineers	4,900	4,532	(368)	(8%)	Bachelor's degree			
17-3029	Engineering technicians, except drafters, all other	3,823	3,507	(316)	(8%)	Associate's degree			
49-9042	Maintenance and repair workers, general	62,117	57,187	(4,930)	(8%)	Moderate-term on- the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	316	288	(28)	(9%)	Postsecondary vocational award			
47-2111	Electricians	32,663	25,937	(6,726)	(21%)	Long-term on-the- job training			

	Exhibit A-41 OKLAHOMA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	2,237	2,649	412	18%	Bachelor's degree		
43-5031	Dispatchers	1,510	1,701	191	13%	Moderate-term on- the-job training		
17-2051	Civil engineers	1,987	2,200	213	11%	Bachelor's degree		
11-3021	Computer and information systems managers	2,091	2,250	159	8%	Degree plus work experience		
15-1099	Computer specialists, all other	1,425	1,545	120	8%	Associate's degree		
17-3022	Civil engineering technicians	680	737	57	8%	Associate's degree		
47-4051	Highway maintenance workers	3,297	3,481	184	6%	Moderate-term on- the-job training		
53-6041	Traffic technicians	285	298	13	5%	Short-term on-the- job training		
17-2071	Electrical engineers	1,562	1,628	66	4%	Bachelor's degree		
49-9042	Maintenance and repair workers, general	15,459	16,126	667	4%	Moderate-term on- the-job training		
49-9097	Signal and track switch repairers	379	395	16	4%	Moderate-term on- the-job training		
17-3029	Engineering technicians, except drafters, all other	758	784	26	3%	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	284	293	9	3%	Postsecondary vocational award		
17-3023	Electrical and electronic engineering technicians	1,986	2,005	19	1%	Associate's degree		
11-3071	Transportation, storage, and distribution managers	1,053	1,040	(13)	(1%)	Work experience in a related field		
47-2111	Electricians	8,698	8,650	(48)	(1%)	Long-term on-the- job training		

	Exhibit A-42 OREGON- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	3,159	3,698	539	17%	Bachelor's degree			
43-5031	Dispatchers	1,026	1,140	114	11%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	5,298	5,663	365	7%	Associate's degree			
11-3021	Computer and information systems managers	3,546	3,725	179	5%	Degree plus work experience			
49-9097	Signal and track switch repairers	430	450	20	5%	Moderate-term on- the-job training			
53-6041	Traffic technicians	64	67	3	5%	Short-term on-the- job training			
47-4051	Highway maintenance workers	1,883	1,967	84	4%	Moderate-term on- the-job training			
17-3022	Civil engineering technicians	1,176	1,204	28	2%	Associate's degree			
17-2051	Civil engineers	4,791	4,843	52	1%	Bachelor's degree			
49-9042	Maintenance and repair workers, general	14,230	14,068	(162)	(1%)	Moderate-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	1,443	1,380	(63)	(4%)	Work experience in a related field			
17-2071	Electrical engineers	1,847	1,702	(145)	(8%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	2,986	2,727	(259)	(9%)	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	261	237	(24)	(9%)	Postsecondary vocational award			
17-3029	Engineering technicians, except drafters, all other	1,853	1,618	(235)	(13%)	Associate's degree			
47-2111	Electricians	8,972	7,364	(1,608)	(18%)	Long-term on-the- job training			

	Exhibit A-43 PENNSYLVANIA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	8,749	10,640	1,891	22%	Bachelor's degree		
49-9097	Signal and track switch repairers	978	1,066	88	9%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	6,430	6,860	430	7%	Associate's degree		
11-3021	Computer and information systems managers	9,205	9,745	540	6%	Degree plus work experience		
43-5031	Dispatchers	3,617	3,843	226	6%	Moderate-term on- the-job training		
17-2051	Civil engineers	12,907	13,150	243	2%	Bachelor's degree		
17-3022	Civil engineering technicians	2,786	2,835	49	2%	Associate's degree		
47-4051	Highway maintenance workers	9,587	9,786	199	2%	Moderate-term on- the-job training		
53-6041	Traffic technicians	97	98	1	1%	Short-term on-the- job training		
17-3029	Engineering technicians, except drafters, all other	1,641	1,626	(15)	(1%)	Associate's degree		
49-9042	Maintenance and repair workers, general	63,857	63,233	(624)	(1%)	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	3,893	3,782	(111)	(3%)	Work experience in a related field		
17-2071	Electrical engineers	5,884	5,673	(211)	(4%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	7,339	6,993	(346)	(5%)	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	359	336	(23)	(6%)	Postsecondary vocational award		
47-2111	Electricians	29,434	26,895	(2,539)	(9%)	Long-term on-the- job training		

	Exhibit A-44 RHODE ISLAND- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	970	1,160	190	20%	Bachelor's degree		
49-9097	Signal and track switch repairers	78	84	6	8%	Moderate-term on- the-job training		
43-5031	Dispatchers	385	412	27	7%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	1,081	1,109	28	3%	Associate's degree		
11-3021	Computer and information systems managers	1,223	1,235	12	1%	Degree plus work experience		
17-2051	Civil engineers	753	745	(8)	(1%)	Bachelor's degree		
17-3022	Civil engineering technicians	345	338	(7)	(2%)	Associate's degree		
47-4051	Highway maintenance workers	585	553	(32)	(5%)	Moderate-term on- the-job training		
49-9042	Maintenance and repair workers, general	4,466	4,256	(210)	(5%)	Moderate-term on- the-job training		
17-3029	Engineering technicians, except drafters, all other	321	303	(18)	(6%)	Associate's degree		
11-3071	Transportation, storage, and distribution managers	230	215	(15)	(7%)	Work experience in a related field		
17-2071	Electrical engineers	481	437	(44)	(9%)	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	32	29	(3)	(9%)	Postsecondary vocational award		
17-3023	Electrical and electronic engineering technicians	504	456	(48)	(10%)	Associate's degree		
47-2111	Electricians	2,594	2,114	(480)	(19%)	Long-term on-the- job training		
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training		

	Exhibit A-45 SOUTH CAROLINA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	2,880	3,524	644	22%	Bachelor's degree		
49-9097	Signal and track switch repairers	387	453	66	17%	Moderate-term on- the-job training		
43-5031	Dispatchers	1,399	1,619	220	16%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	1,425	1,633	208	15%	Associate's degree		
11-3021	Computer and information systems managers	2,381	2,686	305	13%	Degree plus work experience		
17-3022	Civil engineering technicians	1,148	1,278	130	11%	Associate's degree		
17-2051	Civil engineers	3,895	4,273	378	10%	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	1,828	2,002	174	10%	Associate's degree		
17-2071	Electrical engineers	1,984	2,162	178	9%	Bachelor's degree		
53-6041	Traffic technicians	70	76	6	9%	Short-term on-the- job training		
17-3029	Engineering technicians, except drafters, all other	389	415	26	7%	Associate's degree		
47-4051	Highway maintenance workers	501	534	33	7%	Moderate-term on- the-job training		
49-9042	Maintenance and repair workers, general	26,596	26,796	200	1%	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	1,312	1,275	(37)	(3%)	Work experience in a related field		
49-2093	Electrical and electronics installers and repairers, transportation equipment	217	207	(10)	(5%)	Postsecondary vocational award		
47-2111	Electricians	10,645	8,825	(1,820)	(17%)	Long-term on-the- job training		

	Exhibit A-46 SOUTH DAKOTA- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	835	1,072	237	28%	Bachelor's degree		
15-1099	Computer specialists, all other	210	233	23	11%	Associate's degree		
11-3021	Computer and information systems managers	226	243	17	8%	Degree plus work experience		
43-5031	Dispatchers	310	335	25	8%	Moderate-term on- the-job training		
17-3022	Civil engineering technicians	400	429	29	7%	Associate's degree		
17-2051	Civil engineers	815	862	47	6%	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	47	50	3	6%	Postsecondary vocational award		
17-2071	Electrical engineers	199	208	9	5%	Bachelor's degree		
49-9042	Maintenance and repair workers, general	2,522	2,651	129	5%	Moderate-term on- the-job training		
49-9097	Signal and track switch repairers	99	103	4	4%	Moderate-term on- the-job training		
17-3029	Engineering technicians, except drafters, all other	102	105	3	3%	Associate's degree		
47-4051	Highway maintenance workers	1,292	1,327	35	3%	Moderate-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	145	148	3	2%	Work experience in a related field		
17-3023	Electrical and electronic engineering technicians	234	238	4	2%	Associate's degree		
47-2111	Electricians	2,074	2,058	(16)	(1%)	Long-term on-the- job training		
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training		

	Exhibit A-47 TENNESSEE- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	3,759	4,444	685	18%	Bachelor's degree			
49-9097	Signal and track switch repairers	714	789	75	11%	Moderate-term on- the-job training			
43-5031	Dispatchers	2,439	2,690	251	10%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	2,358	2,580	222	9%	Associate's degree			
17-3022	Civil engineering technicians	972	1,031	59	6%	Associate's degree			
11-3021	Computer and information systems managers	4,729	4,968	239	5%	Degree plus work experience			
53-6041	Traffic technicians	631	660	29	5%	Short-term on-the- job training			
17-2051	Civil engineers	3,351	3,485	134	4%	Bachelor's degree			
47-4051	Highway maintenance workers	3,979	4,141	162	4%	Moderate-term on- the-job training			
49-9042	Maintenance and repair workers, general	35,154	34,127	(1,027)	(3%)	Moderate-term on- the-job training			
17-2071	Electrical engineers	1,931	1,811	(120)	(6%)	Bachelor's degree			
17-3029	Engineering technicians, except drafters, all other	568	531	(37)	(7%)	Associate's degree			
47-2111	Electricians	16,238	15,049	(1,189)	(7%)	Long-term on-the- job training			
11-3071	Transportation, storage, and distribution managers	3,379	3,097	(282)	(8%)	Work experience in a related field			
17-3023	Electrical and electronic engineering technicians	2,097	1,920	(177)	(8%)	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	446	398	(48)	(11%)	Postsecondary vocational award			

	Exhibit A-48 TEXAS- Historical Occupational Change Summary 2005-2010							
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level		
15-1081	Network systems and data communications analysts	22,255	26,610	4,355	20%	Bachelor's degree		
43-5031	Dispatchers	6,412	7,283	871	14%	Moderate-term on- the-job training		
15-1099	Computer specialists, all other	10,364	11,724	1,360	13%	Associate's degree		
49-9097	Signal and track switch repairers	2,675	3,006	331	12%	Moderate-term on- the-job training		
11-3021	Computer and information systems managers	17,941	19,575	1,634	9%	Degree plus work experience		
17-2051	Civil engineers	27,176	29,743	2,567	9%	Bachelor's degree		
17-3029	Engineering technicians, except drafters, all other	5,478	5,959	481	9%	Associate's degree		
17-3022	Civil engineering technicians	11,270	12,184	914	8%	Associate's degree		
47-4051	Highway maintenance workers	3,250	3,497	247	8%	Moderate-term on- the-job training		
53-6041	Traffic technicians	387	417	30	8%	Short-term on-the- job training		
49-9042	Maintenance and repair workers, general	99,509	106,383	6,874	7%	Moderate-term on- the-job training		
49-2093	Electrical and electronics installers and repairers, transportation equipment	920	966	46	5%	Postsecondary vocational award		
11-3071	Transportation, storage, and distribution managers	9,939	10,305	366	4%	Work experience in a related field		
47-2111	Electricians	53,101	54,012	911	2%	Long-term on-the- job training		
17-2071	Electrical engineers	13,108	13,082	(26)	0%	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	14,960	14,676	(284)	(2%)	Associate's degree		

	Exhibit A-49 UTAH- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	2,407	2,904	497	21%	Bachelor's degree			
43-5031	Dispatchers	437	504	67	15%	Moderate-term on- the-job training			
17-2051	Civil engineers	2,520	2,836	316	13%	Bachelor's degree			
11-3021	Computer and information systems managers	2,094	2,354	260	12%	Degree plus work experience			
17-3022	Civil engineering technicians	506	565	59	12%	Associate's degree			
17-2071	Electrical engineers	1,051	1,171	120	11%	Bachelor's degree			
49-9097	Signal and track switch repairers	236	262	26	11%	Moderate-term on- the-job training			
15-1099	Computer specialists, all other	2,108	2,295	187	9%	Associate's degree			
49-9042	Maintenance and repair workers, general	9,837	10,678	841	9%	Moderate-term on- the-job training			
47-4051	Highway maintenance workers	881	946	65	7%	Moderate-term on- the-job training			
17-3029	Engineering technicians, except drafters, all other	400	420	20	5%	Associate's degree			
53-6041	Traffic technicians	59	62	3	5%	Short-term on-the- job training			
17-3023	Electrical and electronic engineering technicians	1,408	1,464	56	4%	Associate's degree			
11-3071	Transportation, storage, and distribution managers	906	918	12	1%	Work experience in a related field			
47-2111	Electricians	7,157	7,218	61	1%	Long-term on-the- job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	70	69	(1)	(1%)	Postsecondary vocational award			

	Exhibit A-50 VERMONT- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	500	603	103	21%	Bachelor's degree			
15-1099	Computer specialists, all other	219	243	24	11%	Associate's degree			
49-9097	Signal and track switch repairers	84	92	8	10%	Moderate-term on- the-job training			
43-5031	Dispatchers	232	247	15	6%	Moderate-term on- the-job training			
11-3021	Computer and information systems managers	420	439	19	5%	Degree plus work experience			
49-9042	Maintenance and repair workers, general	2,981	3,035	54	2%	Moderate-term on- the-job training			
47-4051	Highway maintenance workers	1,141	1,146	5	0%	Moderate-term on- the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	24	23	(1)	(4%)	Postsecondary vocational award			
11-3071	Transportation, storage, and distribution managers	195	185	(10)	(5%)	Work experience in a related field			
17-3022	Civil engineering technicians	262	246	(16)	(6%)	Associate's degree			
17-2051	Civil engineers	725	676	(49)	(7%)	Bachelor's degree			
17-3029	Engineering technicians, except drafters, all other	342	319	(23)	(7%)	Associate's degree			
17-2071	Electrical engineers	319	293	(26)	(8%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	152	134	(18)	(12%)	Associate's degree			
47-2111	Electricians	1,925	1,592	(333)	(17%)	Long-term on-the- job training			
53-6041	Traffic technicians	<10	<10			Short-term on-the- job training			

	Exhibit A-51 VIRGINIA- Historical Occupational Change Summary 2005-2010								
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level			
15-1081	Network systems and data communications analysts	14,285	17,215	2,930	21%	Bachelor's degree			
15-1099	Computer specialists, all other	10,236	11,473	1,237	12%	Associate's degree			
11-3021	Computer and information systems managers	12,279	13,416	1,137	9%	Degree plus work experience			
43-5031	Dispatchers	2,502	2,732	230	9%	Moderate-term on- the-job training			
49-9097	Signal and track switch repairers	932	1,019	87	9%	Moderate-term on- the-job training			
17-3029	Engineering technicians, except drafters, all other	2,630	2,714	84	3%	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	793	810	17	2%	Postsecondary vocational award			
17-2051	Civil engineers	10,189	10,326	137	1%	Bachelor's degree			
47-4051	Highway maintenance workers	3,295	3,321	26	1%	Moderate-term on- the-job training			
53-6041	Traffic technicians	152	154	2	1%	Short-term on-the- job training			
17-3023	Electrical and electronic engineering technicians	5,892	5,833	(59)	(1%)	Associate's degree			
49-9042	Maintenance and repair workers, general	37,726	37,054	(672)	(2%)	Moderate-term on- the-job training			
17-2071	Electrical engineers	7,272	7,062	(210)	(3%)	Bachelor's degree			
11-3071	Transportation, storage, and distribution managers	1,868	1,796	(72)	(4%)	Work experience in a related field			
17-3022	Civil engineering technicians	3,047	2,931	(116)	(4%)	Associate's degree			
47-2111	Electricians	24,665	21,589	(3,076)	(12%)	Long-term on-the- job training			

Exhibit A-52 WASHINGTON- Historical Occupational Change Summary 2005-2010										
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level				
15-1081	Network systems and data communications analysts	9,628	12,343	2,715	28%	Bachelor's degree				
11-3021	Computer and information systems managers	8,290	9,415	1,125	14%	Degree plus work experience				
15-1099	Computer specialists, all other	8,112	9,229	1,117	14%	Associate's degree				
49-9097	Signal and track switch repairers	570	633	63	11%	Moderate-term on- the-job training				
43-5031	Dispatchers	1,525	1,659	134	9%	Moderate-term on- the-job training				
17-2051	Civil engineers	12,938	13,765	827	6%	Bachelor's degree				
17-3022	Civil engineering technicians	2,261	2,386	125	6%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	3,107	3,302	195	6%	Associate's degree				
17-2071	Electrical engineers	3,584	3,717	133	4%	Bachelor's degree				
49-9042	Maintenance and repair workers, general	23,659	24,580	921	4%	Moderate-term on- the-job training				
47-4051	Highway maintenance workers	2,972	3,069	97	3%	Moderate-term on- the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	437	446	9	2%	Postsecondary vocational award				
53-6041	Traffic technicians	161	164	3	2%	Short-term on-the- job training				
17-3023	Electrical and electronic engineering technicians	2,897	2,897	0	0%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	2,717	2,668	(49)	(2%)	Work experience in a related field				
47-2111	Electricians	17,349	16,167	(1,182)	(7%)	Long-term on-the- job training				

Exhibit A-53 WEST VIRGINIA- Historical Occupational Change Summary 2005-2010										
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level				
15-1081	Network systems and data communications analysts	852	1,028	176	21%	Bachelor's degree				
15-1099	Computer specialists, all other	1,166	1,362	196	17%	Associate's degree				
11-3021	Computer and information systems managers	663	711	48	7%	Degree plus work experience				
43-5031	Dispatchers	774	826	52	7%	Moderate-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	289	307	18	6%	Associate's degree				
53-6041	Traffic technicians	16	17	1	6%	Short-term on-the- job training				
17-2051	Civil engineers	1,393	1,461	68	5%	Bachelor's degree				
47-4051	Highway maintenance workers	443	464	21	5%	Moderate-term on- the-job training				
49-9097	Signal and track switch repairers	147	155	8	5%	Moderate-term on- the-job training				
17-3022	Civil engineering technicians	717	742	25	3%	Associate's degree				
47-2111	Electricians	5,275	5,455	180	3%	Long-term on-the- job training				
17-3023	Electrical and electronic engineering technicians	572	585	13	2%	Associate's degree				
17-2071	Electrical engineers	443	446	3	1%	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	65	65	0	0%	Postsecondary vocational award				
49-9042	Maintenance and repair workers, general	9,779	9,703	(76)	(1%)	Moderate-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	493	479	(14)	(3%)	Work experience in a related field				

Exhibit A-54 WISCONSIN- Historical Occupational Change Summary 2005-2010										
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level				
15-1081	Network systems and data communications analysts	6,679	7,713	1,034	15%	Bachelor's degree				
43-5031	Dispatchers	1,385	1,487	102	7%	Moderate-term on- the-job training				
49-9097	Signal and track switch repairers	538	577	39	7%	Moderate-term on- the-job training				
15-1099	Computer specialists, all other	1,778	1,878	100	6%	Associate's degree				
17-2051	Civil engineers	4,677	4,826	149	3%	Bachelor's degree				
11-3021	Computer and information systems managers	5,635	5,734	99	2%	Degree plus work experience				
47-4051	Highway maintenance workers	5,282	5,383	101	2%	Moderate-term on- the-job training				
17-3022	Civil engineering technicians	1,226	1,244	18	1%	Associate's degree				
53-6041	Traffic technicians	39	39	0	0%	Short-term on-the- job training				
49-9042	Maintenance and repair workers, general	26,004	25,315	(689)	(3%)	Moderate-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	2,114	1,988	(126)	(6%)	Work experience in a related field				
17-2071	Electrical engineers	3,624	3,366	(258)	(7%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	3,117	2,893	(224)	(7%)	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	642	596	(46)	(7%)	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	294	273	(21)	(7%)	Postsecondary vocational award				
47-2111	Electricians	15,997	13,674	(2,323)	(15%)	Long-term on-the- job training				

	Exhibit A-55 WYOMING - Historical Occupational Change Summary 2005-2010										
SOC Code	DOL Standard Occupation Title	# of 2005 Jobs	# of 2010 Jobs	Change	% Change	Education Level					
43-5031	Dispatchers	287	339	52	18%	Moderate-term on- the-job training					
47-2111	Electricians	2,538	2,995	457	18%	Long-term on-the- job training					
15-1081	Network systems and data communications analysts	343	393	50	15%	Bachelor's degree					
11-3071	Transportation, storage, and distribution managers	159	177	18	11%	Work experience in a related field					
17-2071	Electrical engineers	262	291	29	11%	Bachelor's degree					
47-4051	Highway maintenance workers	289	320	31	11%	Moderate-term on- the-job training					
49-9042	Maintenance and repair workers, general	3,714	4,108	394	11%	Moderate-term on- the-job training					
17-2051	Civil engineers	758	833	75	10%	Bachelor's degree					
17-3022	Civil engineering technicians	118	130	12	10%	Associate's degree					
17-3029	Engineering technicians, except drafters, all other	131	143	12	9%	Associate's degree					
17-3023	Electrical and electronic engineering technicians	169	182	13	8%	Associate's degree					
15-1099	Computer specialists, all other	218	229	11	5%	Associate's degree					
11-3021	Computer and information systems managers	206	211	5	2%	Degree plus work experience					
49-9097	Signal and track switch repairers	111	113	2	2%	Moderate-term on- the-job training					
49-2093	Electrical and electronics installers and repairers, transportation equipment	83	84	1	1%	Postsecondary vocational award					
53-6041	Traffic technicians	<10	11			Short-term on-the- job training					

Appendix B

Region- and State-level Occupational Change Summary: Forecasted 2010, 2015, 2020

Appendix B B-1

This appendix first presents the forecasted occupational data for SOM positions in each of the United States' four regions, which include the Northeast, Midwest, West, and South. The following table provides an overview of the specific states represented in each regional area.

States Included in Each Regional Area Used to Conduct Occupational Analysis								
Regions	State Areas							
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont							
Midwest	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin							
West	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming							
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia							

Following the regional tables are the 50 state tables and the District of Columbia. These tables appear in alphabetical order.

Appendix B B-2

Region-level Occupational Change Summary: Forecasted 2010, 2015, 2020

Exhibit B-1 provides the forecasted occupational change summary for the Northeast region. The Northeast region includes: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

	Exhibit B-1 NORTHEAST - Forecasted Occupational Change Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	69,526	82,110	93,773	24,247	35%	Bachelor's degree				
49-9097	Signal and track switch repairers	5,295	5,936	6,228	933	18%	Moderate-term on-the-job training				
17-2051	Civil engineers	52,400	57,824	61,133	8,733	17%	Bachelor's degree				
11-3021	Computer and information systems managers	74,177	78,925	82,434	8,257	11%	Degree plus work experience				
47-2111	Electricians	115,890	124,601	128,477	12,587	11%	Long-term on- the-job training				
15-1099	Computer specialists, all other	34,067	36,140	37,274	3,207	9%	Associate's degree				
17-3022	Civil engineering technicians	9,050	9,658	9,898	848	9%	Associate's degree				
43-5031	Dispatchers	20,317	21,351	21,645	1,328	7%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	247,061	257,732	264,789	17,728	7%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	8,644	8,639	8,660	16	0%	Associate's degree				
47-4051	Highway maintenance workers	36,541	37,137	36,641	100	0%	Moderate-term on-the-job training				

Appendix B

Exhibit B-1 NORTHEAST - Forecasted Occupational Change Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,122	2,097	2,072	(50)	(2%)	Postsecondary vocational award
53-6041	Traffic technicians	1,807	1,816	1,769	(38)	(2%)	Short-term on- the-job training
17-2071	Electrical engineers	31,068	30,277	29,886	(1,182)	(4%)	Bachelor's degree
11-3071	Transportation, storage, and distribution managers	17,713	17,425	16,760	(953)	(5%)	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	29,751	28,118	27,236	(2,515)	(8%)	Associate's degree

The following table, Exhibit B-2, provides the forecasted occupational change summary for the Midwest region. The Midwest region includes: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

	Exhibit B-2 MIDWEST - Forecasted Occupational Change Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	69,639	82,941	95,028	25,389	36%	Bachelor's degree				
17-2051	Civil engineers	49,147	54,723	58,800	9,653	20%	Bachelor's degree				
49-9097	Signal and track switch repairers	8,169	9,016	9,431	1,262	15%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	64,007	69,042	73,035	9,028	14%	Degree plus work experience				
17-3022	Civil engineering technicians	16,982	18,374	19,287	2,305	14%	Associate's degree				
47-2111	Electricians	152,172	163,866	171,556	19,384	13%	Long-term on- the-job training				
43-5031	Dispatchers	21,277	22,747	23,694	2,417	11%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	56,186	59,712	61,944	5,758	10%	Associate's degree				
49-9042	Maintenance and repair workers, general	300,923	314,749	326,889	25,966	9%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,585	2,648	2,703	118	5%	Postsecondary vocational award				
17-3029	Engineering technicians, except drafters, all other	15,159	15,217	15,557	398	3%	Associate's degree				

Exhibit B-2 MIDWEST - Forecasted Occupational Change Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
53-6041	Traffic technicians	738	757	757	19	3%	Short-term on- the-job training
47-4051	Highway maintenance workers	51,192	52,404	52,440	1,248	2%	Moderate-term on-the-job training
17-2071	Electrical engineers	30,590	30,496	30,806	216	1%	Bachelor's degree
11-3071	Transportation, storage, and distribution managers	23,212	23,266	22,725	(487)	(2%)	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	26,991	26,451	26,367	(624)	(2%)	Associate's degree

Exhibit B-3 provides the forecasted occupational change summary for the West region. The West region includes: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

	Exhibit B-3 WEST - Forecasted Occupational Change Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	88,349	107,035	123,880	35,531	40%	Bachelor's degree				
17-2051	Civil engineers	91,175	103,909	110,811	19,636	22%	Bachelor's degree				
43-5031	Dispatchers	16,062	18,137	19,378	3,316	21%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	7,918	8,961	9,387	1,469	19%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	71,660	78,989	84,641	12,981	18%	Degree plus work experience				
17-3022	Civil engineering technicians	18,966	21,239	22,244	3,278	17%	Associate's degree				
15-1099	Computer specialists, all other	71,925	78,259	82,691	10,766	15%	Associate's degree				
49-9042	Maintenance and repair workers, general	277,973	302,607	316,356	38,383	14%	Moderate-term on-the-job training				
47-2111	Electricians	142,760	158,357	160,950	18,190	13%	Long-term on- the-job training				
47-4051	Highway maintenance workers	18,310	19,831	20,382	2,072	11%	Moderate-term on-the-job training				
53-6041	Traffic technicians	1,491	1,600	1,635	144	10%	Short-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	22,047	22,818	23,386	1,339	6%	Associate's degree				

Exhibit B-3 WEST - Forecasted Occupational Change Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,714	2,782	2,807	93	3%	Postsecondary vocational award
17-2071	Electrical engineers	37,712	38,107	38,286	574	2%	Bachelor's degree
11-3071	Transportation, storage, and distribution managers	23,903	24,507	24,193	290	1%	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	39,671	38,995	38,588	(1,083)	(3%)	Associate's degree

Exhibit B-4 provides the occupational change summary for the South region. The South region includes: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

	Exhibit B-4 SOUTH - Forecasted Occupational Change Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	128,574	160,549	188,294	59,720	46%	Bachelor's degree				
17-2051	Civil engineers	109,648	126,811	137,424	27,776	25%	Bachelor's degree				
49-9097	Signal and track switch repairers	13,167	15,373	16,353	3,186	24%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	96,866	108,829	117,273	20,407	21%	Degree plus work experience				
17-3022	Civil engineering technicians	37,335	42,357	45,096	7,761	21%	Associate's degree				
43-5031	Dispatchers	40,349	45,370	48,521	8,172	20%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	75,604	82,432	87,052	11,448	15%	Associate's degree				
47-2111	Electricians	253,186	279,639	291,457	38,271	15%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	529,719	574,994	605,434	75,715	14%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	34,833	37,371	38,425	3,592	10%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	24,169	25,499	26,403	2,234	9%	Associate's degree				
53-6041	Traffic technicians	2,856	3,058	3,123	267	9%	Short-term on- the-job training				

Exhibit B-4 SOUTH - Forecasted Occupational Change Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-2071	Electrical engineers	52,756	55,451	56,794	4,038	8%	Bachelor's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	6,192	6,442	6,567	375	6%	Postsecondary vocational award
11-3071	Transportation, storage, and distribution managers	36,908	38,227	37,965	1,057	3%	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	55,374	56,566	57,058	1,684	3%	Associate's degree

State-level Occupational Change Summary: Forecasted 2010, 2015, 2020

	Exhibit B-5 ALABAMA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,996	3,668	4,235	1,239	41%	Bachelor's degree				
49-9097	Signal and track switch repairers	468	557	596	128	27%	Moderate-term on-the-job training				
17-2051	Civil engineers	4,970	5,706	6,068	1,098	22%	Bachelor's degree				
11-3021	Computer and information systems managers	2,422	2,719	2,910	488	20%	Degree plus work experience				
15-1099	Computer specialists, all other	2,497	2,766	2,956	459	18%	Associate's degree				
43-5031	Dispatchers	2,540	2,806	2,963	423	17%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	1,187	1,286	1,366	179	15%	Associate's degree				
49-9042	Maintenance and repair workers, general	18,346	19,880	21,081	2,735	15%	Moderate-term on-the-job training				
47-2111	Electricians	10,540	11,610	12,018	1,478	14%	Long-term on- the-job training				
17-3022	Civil engineering technicians	1,921	2,115	2,171	250	13%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	314	333	341	27	9%	Postsecondary vocational award				
17-2071	Electrical engineers	3,430	3,620	3,657	227	7%	Bachelor's degree				
53-6041	Traffic technicians	67	71	72	5	7%	Short-term on- the-job training				
47-4051	Highway maintenance workers	3,342	3,511	3,550	208	6%	Moderate-term on-the-job training				

	Exhibit B-5 ALABAMA- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-3071	Transportation, storage, and distribution managers	980	1,009	1,001	21	2%	Work experience in a related field					
17-3023	Electrical and electronic engineering technicians	1,527	1,559	1,565	38	2%	Associate's degree					

	Exhibit B-6 ALASKA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	563	674	768	205	36%	Bachelor's degree				
17-2051	Civil engineers	1,582	1,809	1,958	376	24%	Bachelor's degree				
17-3022	Civil engineering technicians	347	390	413	66	19%	Associate's degree				
49-9097	Signal and track switch repairers	80	91	95	15	19%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	455	496	528	73	16%	Degree plus work experience				
47-2111	Electricians	2,620	2,862	3,038	418	16%	Long-term on- the-job training				
17-2071	Electrical engineers	682	747	779	97	14%	Bachelor's degree				
43-5031	Dispatchers	373	407	427	54	14%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	4,277	4,593	4,845	568	13%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	17	18	19	2	12%	Postsecondary vocational award				
47-4051	Highway maintenance workers	125	133	137	12	10%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	589	620	643	54	9%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	467	491	504	37	8%	Associate's degree				

	Exhibit B-6 ALASKA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	764	800	796	32	4%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	610	616	612	2	0%	Work experience in a related field				
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training				

	Exhibit B-7 ARIZONA- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	5,928	7,171	8,101	2,173	37%	Bachelor's degree					
17-2051	Civil engineers	4,580	5,532	6,150	1,570	34%	Bachelor's degree					
17-3022	Civil engineering technicians	1,834	2,178	2,387	553	30%	Associate's degree					
49-9097	Signal and track switch repairers	606	712	751	145	24%	Moderate-term on-the-job training					
43-5031	Dispatchers	1,825	2,084	2,193	368	20%	Moderate-term on-the-job training					
11-3021	Computer and information systems managers	4,374	4,843	5,067	693	16%	Degree plus work experience					
49-9042	Maintenance and repair workers, general	27,839	30,832	32,237	4,398	16%	Moderate-term on-the-job training					
15-1099	Computer specialists, all other	2,764	3,041	3,192	428	15%	Associate's degree					
47-4051	Highway maintenance workers	1,535	1,688	1,729	194	13%	Moderate-term on-the-job training					
17-3029	Engineering technicians, except drafters, all other	966	1,023	1,061	95	10%	Associate's degree					
53-6041	Traffic technicians	102	111	111	9	9%	Short-term on- the-job training					
47-2111	Electricians	12,334	13,580	13,248	914	7%	Long-term on- the-job training					
11-3071	Transportation, storage, and distribution managers	1,932	2,019	2,000	68	4%	Work experience in a related field					
17-2071	Electrical engineers	4,370	4,489	4,508	138	3%	Bachelor's degree					

	Exhibit B-7 ARIZONA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	161	164	161	0	0%	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	4,830	4,605	4,414	(416)	(9%)	Associate's degree				

	Exhibit B-8 ARKANSAS- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	2,993	3,871	4,701	1,708	57%	Bachelor's degree					
11-3021	Computer and information systems managers	1,517	1,730	1,900	383	25%	Degree plus work experience					
17-2051	Civil engineers	1,770	2,017	2,196	426	24%	Bachelor's degree					
43-5031	Dispatchers	1,225	1,378	1,501	276	23%	Moderate-term on-the-job training					
17-3022	Civil engineering technicians	438	494	529	91	21%	Associate's degree					
47-2111	Electricians	6,425	7,042	7,538	1,113	17%	Long-term on- the-job training					
15-1099	Computer specialists, all other	760	826	873	113	15%	Associate's degree					
49-9042	Maintenance and repair workers, general	12,727	13,778	14,692	1,965	15%	Moderate-term on-the-job training					
49-9097	Signal and track switch repairers	325	359	374	49	15%	Moderate-term on-the-job training					
47-4051	Highway maintenance workers	1,496	1,619	1,708	212	14%	Moderate-term on-the-job training					
17-3029	Engineering technicians, except drafters, all other	297	319	334	37	12%	Associate's degree					
53-6041	Traffic technicians	33	35	37	4	12%	Short-term on- the-job training					
11-3071	Transportation, storage, and distribution managers	1,022	1,082	1,094	72	7%	Work experience in a related field					

	Exhibit B-8 ARKANSAS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	168	175	180	12	7%	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	978	996	1,003	25	3%	Associate's degree				
17-2071	Electrical engineers	649	656	665	16	2%	Bachelor's degree				

	Exhibit B-9 CALIFORNIA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	47,319	57,356	66,887	19,568	41%	Bachelor's degree				
43-5031	Dispatchers	6,235	7,076	7,661	1,426	23%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	41,556	45,708	49,286	7,730	19%	Degree plus work experience				
17-2051	Civil engineers	44,399	50,005	52,894	8,495	19%	Bachelor's degree				
49-9097	Signal and track switch repairers	4,214	4,744	4,954	740	18%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	37,194	40,508	43,119	5,925	16%	Associate's degree				
17-3022	Civil engineering technicians	7,939	8,791	9,149	1,210	15%	Associate's degree				
47-4051	Highway maintenance workers	4,263	4,622	4,797	534	13%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	129,449	140,175	146,725	17,276	13%	Moderate-term on-the-job training				
47-2111	Electricians	59,380	65,102	65,858	6,478	11%	Long-term on- the-job training				
53-6041	Traffic technicians	832	892	915	83	10%	Short-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	10,835	11,153	11,475	640	6%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	1,169	1,200	1,222	53	5%	Postsecondary vocational award				

Exhibit B-9 CALIFORNIA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
11-3071	Transportation, storage, and distribution managers	12,003	12,244	12,096	93	1%	Work experience in a related field			
17-2071	Electrical engineers	17,785	17,575	17,680	(105)	(1%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	19,020	18,408	18,291	(729)	(4%)	Associate's degree			

	Exhibit B-10 COLORADO- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	7,567	8,792	9,821	2,254	30%	Bachelor's degree					
43-5031	Dispatchers	1,482	1,669	1,785	303	20%	Moderate-term on-the-job training					
17-2051	Civil engineers	9,006	10,139	10,673	1,667	19%	Bachelor's degree					
49-9097	Signal and track switch repairers	633	714	749	116	18%	Moderate-term on-the-job training					
17-3022	Civil engineering technicians	1,523	1,680	1,737	214	14%	Associate's degree					
47-4051	Highway maintenance workers	2,764	3,002	3,091	327	12%	Moderate-term on-the-job training					
15-1099	Computer specialists, all other	7,928	8,478	8,784	856	11%	Associate's degree					
53-6041	Traffic technicians	88	96	98	10	11%	Short-term on- the-job training					
49-9042	Maintenance and repair workers, general	23,103	24,684	25,193	2,090	9%	Moderate-term on-the-job training					
17-3029	Engineering technicians, except drafters, all other	1,207	1,265	1,297	90	7%	Associate's degree					
11-3021	Computer and information systems managers	5,035	5,247	5,332	297	6%	Degree plus work experience					
47-2111	Electricians	14,392	15,120	14,631	239	2%	Long-term on- the-job training					
49-2093	Electrical and electronics installers and repairers, transportation equipment	203	207	207	4	2%	Postsecondary vocational award					

	Exhibit B-10 COLORADO- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	1,343	1,375	1,342	(1)	0%	Work experience in a related field				
17-2071	Electrical engineers	3,732	3,746	3,698	(34)	(1%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	2,623	2,517	2,443	(180)	(7%)	Associate's degree				

	Exhibit B-11 CONNECTICUT- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	4,704	5,547	6,282	1,578	34%	Bachelor's degree				
49-9097	Signal and track switch repairers	380	440	468	88	23%	Moderate-term on-the-job training				
47-2111	Electricians	8,285	9,078	9,520	1,235	15%	Long-term on- the-job training				
17-2051	Civil engineers	3,647	3,978	4,107	460	13%	Bachelor's degree				
11-3021	Computer and information systems managers	7,228	7,721	8,064	836	12%	Degree plus work experience				
49-9042	Maintenance and repair workers, general	11,664	12,372	12,936	1,272	11%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	1,686	1,806	1,863	177	10%	Associate's degree				
17-3022	Civil engineering technicians	592	627	633	41	7%	Associate's degree				
43-5031	Dispatchers	1,359	1,409	1,413	54	4%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	134	136	137	3	2%	Postsecondary vocational award				
17-3029	Engineering technicians, except drafters, all other	553	553	555	2	0%	Associate's degree				
53-6041	Traffic technicians	45	46	45	0	0%	Short-term on- the-job training				
47-4051	Highway maintenance workers	2,578	2,610	2,561	(17)	(1%)	Moderate-term on-the-job training				

	Exhibit B-11 CONNECTICUT- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	1,390	1,384	1,347	(43)	(3%)	Work experience in a related field				
17-2071	Electrical engineers	1,909	1,859	1,850	(59)	(3%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	2,015	1,924	1,890	(125)	(6%)	Associate's degree				

	Exhibit B-12 DELAWARE- Forecasted Occupational Change Summary										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	5, 2020 # of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,031	1,261	1,465	434	42%	Bachelor's degree				
47-2111	Electricians	2,060	2,330	2,403	343	17%	Long-term on- the-job training				
49-9097	Signal and track switch repairers	92	104	108	16	17%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	409	442	466	57	14%	Associate's degree				
17-2051	Civil engineers	1,049	1,156	1,192	143	14%	Bachelor's degree				
11-3021	Computer and information systems managers	1,534	1,638	1,722	188	12%	Degree plus work experience				
17-3022	Civil engineering technicians	338	365	368	30	9%	Associate's degree				
49-9042	Maintenance and repair workers, general	3,868	4,119	4,225	357	9%	Moderate-term on-the-job training				
43-5031	Dispatchers	208	222	225	17	8%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	104	108	107	3	3%	Moderate-term on-the-job training				
17-3023	Electrical and electronic engineering technicians	412	417	411	(1)	0%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	46	46	45	(1)	(2%)	Postsecondary vocational award				
17-3029	Engineering technicians, except drafters, all other	116	115	113	(3)	(3%)	Associate's degree				
17-2071	Electrical engineers	656	653	633	(23)	(4%)	Bachelor's degree				

	Exhibit B-12 DELAWARE- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code												
11-3071	Transportation, storage, and distribution managers	420	413	400	(20)	(5%)	Work experience in a related field					
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training					

	Exhibit B-13 DISTRICT OF COLUMBIA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	3,011	3,787	4,518	1,507	50%	Bachelor's degree				
11-3021	Computer and information systems managers	3,176	3,495	3,699	523	16%	Degree plus work experience				
17-3022	Civil engineering technicians	217	240	249	32	15%	Associate's degree				
17-2051	Civil engineers	1,510	1,636	1,711	201	13%	Bachelor's degree				
49-9042	Maintenance and repair workers, general	7,023	7,535	7,883	860	12%	Moderate-term on-the-job training				
43-5031	Dispatchers	193	208	215	22	11%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	9,722	10,134	10,450	728	7%	Associate's degree				
49-9097	Signal and track switch repairers	46	48	49	3	7%	Moderate-term on-the-job training				
17-2071	Electrical engineers	1,155	1,203	1,230	75	6%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	647	669	687	40	6%	Associate's degree				
17-3023	Electrical and electronic engineering technicians	1,170	1,207	1,233	63	5%	Associate's degree				
47-2111	Electricians	1,646	1,738	1,731	85	5%	Long-term on- the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	49	50	51	2	4%	Postsecondary vocational award				

	Exhibit B-13 DISTRICT OF COLUMBIA- Forecasted Occupational Change Summary 2010, 2015, 2020										
BOL Standard # of 2010 # of 2015 # of 2020 (2010- (
47-4051	Highway maintenance workers	102	106	105	3	3%	Moderate-term on-the-job training				
53-6041	Traffic technicians	11	11	11	0	0%	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	510	501	486	(24)	(5%)	Work experience in a related field				

	Exhibit B-14 FLORIDA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	24,362	30,346	35,199	10,837	44%	Bachelor's degree				
49-9097	Signal and track switch repairers	2,357	2,826	3,024	667	28%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	8,475	9,544	10,193	1,718	20%	Degree plus work experience				
43-5031	Dispatchers	6,239	7,033	7,449	1,210	19%	Moderate-term on-the-job training				
17-2051	Civil engineers	17,261	19,467	20,355	3,094	18%	Bachelor's degree				
15-1099	Computer specialists, all other	6,743	7,397	7,724	981	15%	Associate's degree				
49-9042	Maintenance and repair workers, general	77,655	85,314	88,945	11,290	15%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	4,485	4,946	5,069	584	13%	Associate's degree				
47-4051	Highway maintenance workers	2,900	3,143	3,196	296	10%	Moderate-term on-the-job training				
17-2071	Electrical engineers	7,261	7,543	7,661	400	6%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	2,678	2,791	2,840	162	6%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	1,012	1,048	1,073	61	6%	Postsecondary vocational award				
53-6041	Traffic technicians	333	354	354	21	6%	Short-term on- the-job training				

	Exhibit B-14 FLORIDA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	4,087	4,312	4,308	221	5%	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	9,089	9,208	9,235	146	2%	Associate's degree				
47-2111	Electricians	34,788	36,916	35,647	859	2%	Long-term on- the-job training				

	Exhibit B-15 GEORGIA- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	9,888	12,148	13,980	4,092	41%	Bachelor's degree					
49-9097	Signal and track switch repairers	1,126	1,379	1,491	365	32%	Moderate-term on-the-job training					
17-2051	Civil engineers	7,962	9,121	9,682	1,720	22%	Bachelor's degree					
11-3021	Computer and information systems managers	10,607	11,723	12,575	1,968	19%	Degree plus work experience					
43-5031	Dispatchers	3,749	4,202	4,460	711	19%	Moderate-term on-the-job training					
17-3022	Civil engineering technicians	1,454	1,629	1,700	246	17%	Associate's degree					
15-1099	Computer specialists, all other	4,615	5,023	5,270	655	14%	Associate's degree					
47-2111	Electricians	18,434	20,242	20,598	2,164	12%	Long-term on- the-job training					
49-9042	Maintenance and repair workers, general	47,014	50,292	52,078	5,064	11%	Moderate-term on-the-job training					
47-4051	Highway maintenance workers	2,412	2,604	2,665	253	10%	Moderate-term on-the-job training					
53-6041	Traffic technicians	282	303	307	25	9%	Short-term on- the-job training					
17-2071	Electrical engineers	3,073	3,228	3,266	193	6%	Bachelor's degree					
17-3029	Engineering technicians, except drafters, all other	1,029	1,076	1,094	65	6%	Associate's degree					

	Exhibit B-15 GEORGIA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	488	506	508	20	4%	Postsecondary vocational award				
11-3071	Transportation, storage, and distribution managers	3,132	3,236	3,211	79	3%	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	3,665	3,756	3,788	123	3%	Associate's degree				

	Exhibit B-16 HAWAII- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,692	2,036	2,320	628	37%	Bachelor's degree				
49-9097	Signal and track switch repairers	149	172	182	33	22%	Moderate-term on-the-job training				
17-2051	Civil engineers	1,990	2,187	2,265	275	14%	Bachelor's degree				
11-3021	Computer and information systems managers	603	654	674	71	12%	Degree plus work experience				
47-2111	Electricians	3,125	3,423	3,492	367	12%	Long-term on- the-job training				
17-3022	Civil engineering technicians	144	155	157	13	9%	Associate's degree				
49-9042	Maintenance and repair workers, general	6,796	7,166	7,316	520	8%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	1,247	1,306	1,332	85	7%	Associate's degree				
17-2071	Electrical engineers	629	668	672	43	7%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	541	564	573	32	6%	Associate's degree				
43-5031	Dispatchers	255	266	264	9	4%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	69	72	72	3	4%	Postsecondary vocational award				
47-4051	Highway maintenance workers	332	346	343	11	3%	Moderate-term on-the-job training				

	Exhibit B-16 HAWAII- Forecasted Occupational Change Summary 2010, 2015, 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
17-3023	Electrical and electronic engineering technicians	523	538	535	12	2%	Associate's degree			
53-6041	Traffic technicians	41	42	42	1	2%	Short-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	475	465	435	(40)	(8%)	Work experience in a related field			

	Exhibit B-17 IDAHO- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,690	2,199	2,577	887	52%	Bachelor's degree				
47-2111	Electricians	3,974	4,748	5,101	1,127	28%	Long-term on- the-job training				
17-2051	Civil engineers	1,039	1,203	1,293	254	24%	Bachelor's degree				
15-1099	Computer specialists, all other	1,246	1,411	1,531	285	23%	Associate's degree				
11-3021	Computer and information systems managers	1,030	1,163	1,258	228	22%	Degree plus work experience				
43-5031	Dispatchers	434	490	517	83	19%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	523	588	615	92	18%	Associate's degree				
49-9042	Maintenance and repair workers, general	6,075	6,777	7,176	1,101	18%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	191	216	225	34	18%	Moderate-term on-the-job training				
53-6041	Traffic technicians	15	17	17	2	13%	Short-term on- the-job training				
47-4051	Highway maintenance workers	1,125	1,218	1,240	115	10%	Moderate-term on-the-job training				
11-3071	Transportation, storage, and distribution managers	691	725	728	37	5%	Work experience in a related field				
17-3029	Engineering technicians, except drafters, all other	855	894	900	45	5%	Associate's degree				

	Exhibit B-17 IDAHO- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	50	49	48	(2)	(4%)	Postsecondary vocational award				
17-2071	Electrical engineers	1,531	1,460	1,386	(145)	(9%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	1,082	1,031	970	(112)	(10%)	Associate's degree				

	Exhibit B-18 ILLINOIS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	11,376	13,738	16,014	4,638	41%	Bachelor's degree				
17-2051	Civil engineers	8,177	9,362	10,237	2,060	25%	Bachelor's degree				
11-3021	Computer and information systems managers	15,230	16,865	18,400	3,170	21%	Degree plus work experience				
17-3022	Civil engineering technicians	1,778	1,986	2,123	345	19%	Associate's degree				
43-5031	Dispatchers	3,771	4,107	4,346	575	15%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	1,673	1,831	1,901	228	14%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	15,944	17,177	17,942	1,998	13%	Associate's degree				
47-2111	Electricians	28,266	30,278	31,434	3,168	11%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	54,648	57,951	60,820	6,172	11%	Moderate-term on-the-job training				
53-6041	Traffic technicians	100	104	106	6	6%	Short-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	2,688	2,739	2,834	146	5%	Associate's degree				
47-4051	Highway maintenance workers	6,600	6,846	6,927	327	5%	Moderate-term on-the-job training				
17-2071	Electrical engineers	4,710	4,671	4,832	122	3%	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	4,207	4,099	4,164	(43)	(1%)	Associate's degree				

	Exhibit B-18 ILLINOIS- Forecasted Occupational Change Summary 2010, 2015, 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
49-2093	Electrical and electronics installers and repairers, transportation equipment	732	731	726	(6)	(1%)	Postsecondary vocational award			
11-3071	Transportation, storage, and distribution managers	4,900	4,910	4,805	(95)	(2%)	Work experience in a related field			

	Exhibit B-19 INDIANA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	5,421	6,491	7,438	2,017	37%	Bachelor's degree				
17-2051	Civil engineers	3,710	4,160	4,455	745	20%	Bachelor's degree				
43-5031	Dispatchers	1,949	2,113	2,244	295	15%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	730	795	830	100	14%	Associate's degree				
11-3021	Computer and information systems managers	4,189	4,461	4,669	480	11%	Degree plus work experience				
15-1099	Computer specialists, all other	2,597	2,753	2,848	251	10%	Associate's degree				
49-9097	Signal and track switch repairers	918	982	1,014	96	10%	Moderate-term on-the-job training				
47-2111	Electricians	14,688	15,370	15,852	1,164	8%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	36,771	37,884	39,246	2,475	7%	Moderate-term on-the-job training				
53-6041	Traffic technicians	66	69	69	3	5%	Short-term on- the-job training				
47-4051	Highway maintenance workers	4,745	4,871	4,939	194	4%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	1,326	1,339	1,365	39	3%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	201	204	207	6	3%	Postsecondary vocational award				

	Exhibit B-19 INDIANA- Forecasted Occupational Change Summary 2010, 2015, 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
11-3071	Transportation, storage, and distribution managers	2,205	2,218	2,177	(28)	(1%)	Work experience in a related field			
17-2071	Electrical engineers	2,668	2,607	2,616	(52)	(2%)	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	3,269	3,191	3,173	(96)	(3%)	Associate's degree			

	Exhibit B-20 IOWA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,307	2,827	3,263	956	41%	Bachelor's degree				
17-2051	Civil engineers	1,892	2,142	2,331	439	23%	Bachelor's degree				
11-3021	Computer and information systems managers	2,419	2,671	2,852	433	18%	Degree plus work experience				
47-2111	Electricians	7,799	8,581	9,208	1,409	18%	Long-term on- the-job training				
17-3022	Civil engineering technicians	853	937	995	142	17%	Associate's degree				
15-1099	Computer specialists, all other	1,541	1,673	1,753	212	14%	Associate's degree				
43-5031	Dispatchers	898	966	1,015	117	13%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	14,588	15,462	16,191	1,603	11%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	382	409	422	40	10%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	362	380	395	33	9%	Associate's degree				
47-4051	Highway maintenance workers	3,784	3,923	3,986	202	5%	Moderate-term on-the-job training				
53-6041	Traffic technicians	43	44	45	2	5%	Short-term on- the-job training				
17-2071	Electrical engineers	1,395	1,418	1,418	23	2%	Bachelor's degree				

	Exhibit B-20 IOWA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	84	85	86	2	2%	Postsecondary vocational award				
11-3071	Transportation, storage, and distribution managers	1,074	1,092	1,071	(3)	0%	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	1,483	1,492	1,483	0	0%	Associate's degree				

	Exhibit B-21 KANSAS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,970	3,450	3,807	837	28%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	390	425	451	61	16%	Associate's degree				
43-5031	Dispatchers	1,462	1,592	1,679	217	15%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	342	375	392	50	15%	Moderate-term on-the-job training				
47-2111	Electricians	6,721	7,194	7,535	814	12%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	13,074	14,041	14,694	1,620	12%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	1,396	1,492	1,549	153	11%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	115	120	128	13	11%	Postsecondary vocational award				
11-3021	Computer and information systems managers	2,369	2,516	2,583	214	9%	Degree plus work experience				
17-2051	Civil engineers	2,516	2,694	2,749	233	9%	Bachelor's degree				
17-3022	Civil engineering technicians	1,435	1,507	1,514	79	6%	Associate's degree				
47-4051	Highway maintenance workers	1,605	1,681	1,707	102	6%	Moderate-term on-the-job training				
17-2071	Electrical engineers	1,633	1,689	1,696	63	4%	Bachelor's degree				

	Exhibit B-21 KANSAS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
53-6041	Traffic technicians	50	52	52	2	4%	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	914	924	913	(1)	0%	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	1,346	1,361	1,345	(1)	0%	Associate's degree				

	Exhibit B-22 KENTUCKY- Forecasted Occupational Change Summary										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	5, 2020 # of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	3,830	4,653	5,369	1,539	40%	Bachelor's degree				
17-2051	Civil engineers	2,685	2,984	3,188	503	19%	Bachelor's degree				
49-9097	Signal and track switch repairers	428	479	503	75	18%	Moderate-term on-the-job training				
43-5031	Dispatchers	1,555	1,708	1,816	261	17%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,135	1,247	1,322	187	16%	Associate's degree				
11-3021	Computer and information systems managers	2,750	3,003	3,162	412	15%	Degree plus work experience				
47-4051	Highway maintenance workers	2,337	2,487	2,561	224	10%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	1,819	1,924	1,974	155	9%	Associate's degree				
49-9042	Maintenance and repair workers, general	19,537	20,536	21,281	1,744	9%	Moderate-term on-the-job training				
53-6041	Traffic technicians	67	70	71	4	6%	Short-term on- the-job training				
47-2111	Electricians	10,294	10,605	10,574	280	3%	Long-term on- the-job training				
17-2071	Electrical engineers	1,205	1,210	1,221	16	1%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	990	982	980	(10)	(1%)	Associate's degree				
11-3071	Transportation, storage, and distribution managers	1,655	1,659	1,608	(47)	(3%)	Work experience in a related field				

	Exhibit B-22 KENTUCKY- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	970	956	944	(26)	(3%)	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	217	213	206	(11)	(5%)	Postsecondary vocational award				

	Exhibit B-23 LOUISIANA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,116	2,510	2,864	748	35%	Bachelor's degree				
17-2051	Civil engineers	4,332	5,027	5,605	1,273	29%	Bachelor's degree				
49-9097	Signal and track switch repairers	499	586	625	126	25%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,660	1,893	2,062	402	24%	Associate's degree				
11-3021	Computer and information systems managers	1,627	1,828	2,000	373	23%	Degree plus work experience				
43-5031	Dispatchers	1,579	1,770	1,906	327	21%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	29,678	32,427	34,802	5,124	17%	Moderate-term on-the-job training				
17-2071	Electrical engineers	1,365	1,497	1,579	214	16%	Bachelor's degree				
47-4051	Highway maintenance workers	1,355	1,485	1,565	210	15%	Moderate-term on-the-job training				
53-6041	Traffic technicians	86	94	97	11	13%	Short-term on- the-job training				
47-2111	Electricians	12,535	13,446	14,067	1,532	12%	Long-term on- the-job training				
15-1099	Computer specialists, all other	1,972	2,086	2,175	203	10%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	495	525	545	50	10%	Postsecondary vocational award				

	Exhibit B-23 LOUISIANA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3029	Engineering technicians, except drafters, all other	1,803	1,854	1,888	85	5%	Associate's degree				
17-3023	Electrical and electronic engineering technicians	2,173	2,244	2,266	93	4%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	1,523	1,574	1,574	51	3%	Work experience in a related field				

	Exhibit B-24 MAINE- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,197	1,411	1,590	393	33%	Bachelor's degree				
49-9097	Signal and track switch repairers	173	196	207	34	20%	Moderate-term on-the-job training				
17-2051	Civil engineers	1,031	1,120	1,152	121	12%	Bachelor's degree				
11-3021	Computer and information systems managers	950	1,012	1,041	91	10%	Degree plus work experience				
15-1099	Computer specialists, all other	554	585	600	46	8%	Associate's degree				
43-5031	Dispatchers	725	758	764	39	5%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	427	446	445	18	4%	Associate's degree				
49-9042	Maintenance and repair workers, general	5,203	5,375	5,435	232	4%	Moderate-term on-the-job training				
47-2111	Electricians	3,771	3,923	3,897	126	3%	Long-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	660	665	665	5	1%	Associate's degree				
47-4051	Highway maintenance workers	1,654	1,661	1,614	(40)	(2%)	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	117	116	115	(2)	(2%)	Postsecondary vocational award				

	Exhibit B-24 MAINE- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-3071	Transportation, storage, and distribution managers	621	610	582	(39)	(6%)	Work experience in a related field					
17-2071	Electrical engineers	430	413	397	(33)	(8%)	Bachelor's degree					
17-3023	Electrical and electronic engineering technicians	422	395	377	(45)	(11%)	Associate's degree					
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training					

	Exhibit B-25 MARYLAND- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	12,321	15,553	18,545	6,224	51%	Bachelor's degree				
17-2051	Civil engineers	7,705	8,900	9,767	2,062	27%	Bachelor's degree				
49-9097	Signal and track switch repairers	629	734	784	155	25%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	2,147	2,442	2,623	476	22%	Associate's degree				
11-3021	Computer and information systems managers	8,557	9,536	10,244	1,687	20%	Degree plus work experience				
47-2111	Electricians	16,814	18,646	19,616	2,802	17%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	23,766	25,977	27,477	3,711	16%	Moderate-term on-the-job training				
43-5031	Dispatchers	1,552	1,703	1,786	234	15%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	11,436	12,245	12,827	1,391	12%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	3,069	3,268	3,417	348	11%	Associate's degree				
53-6041	Traffic technicians	122	130	133	11	9%	Short-term on- the-job training				
17-2071	Electrical engineers	4,141	4,361	4,477	336	8%	Bachelor's degree				
47-4051	Highway maintenance workers	1,923	2,046	2,081	158	8%	Moderate-term on-the-job training				

	Exhibit B-25 MARYLAND- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	201	205	209	8	4%	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	4,280	4,342	4,384	104	2%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	1,817	1,840	1,807	(10)	(1%)	Work experience in a related field				

	Exhibit B-26 MASSACHUSETTS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	8,801	10,431	12,088	3,287	37%	Bachelor's degree				
49-9097	Signal and track switch repairers	646	727	763	117	18%	Moderate-term on-the-job training				
17-2051	Civil engineers	9,125	9,967	10,575	1,450	16%	Bachelor's degree				
11-3021	Computer and information systems managers	12,894	13,818	14,708	1,814	14%	Degree plus work experience				
17-3022	Civil engineering technicians	767	825	860	93	12%	Associate's degree				
15-1099	Computer specialists, all other	5,828	6,197	6,480	652	11%	Associate's degree				
49-9042	Maintenance and repair workers, general	23,634	24,801	25,514	1,880	8%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	953	978	1,001	48	5%	Associate's degree				
43-5031	Dispatchers	2,836	2,941	2,957	121	4%	Moderate-term on-the-job training				
47-2111	Electricians	13,784	14,342	13,933	149	1%	Long-term on- the-job training				
47-4051	Highway maintenance workers	2,927	2,945	2,883	(44)	(2%)	Moderate-term on-the-job training				
53-6041	Traffic technicians	146	147	143	(3)	(2%)	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	1,557	1,534	1,491	(66)	(4%)	Work experience in a related field				
17-2071	Electrical engineers	7,631	7,372	7,288	(343)	(4%)	Bachelor's degree				

	Exhibit B-26 MASSACHUSETTS- Forecasted Occupational Change Summary										
	2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	545	527	510	(35)	(6%)	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	8,054	7,567	7,373	(681)	(8%)	Associate's degree				

	Exhibit B-27 MICHIGAN- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	8,872	10,415	11,874	3,002	34%	Bachelor's degree				
49-9097	Signal and track switch repairers	993	1,143	1,218	225	23%	Moderate-term on-the-job training				
17-2051	Civil engineers	7,065	7,803	8,648	1,583	22%	Bachelor's degree				
17-3022	Civil engineering technicians	2,401	2,585	2,818	417	17%	Associate's degree				
47-2111	Electricians	20,159	21,736	23,465	3,306	16%	Long-term on- the-job training				
11-3021	Computer and information systems managers	7,281	7,666	8,079	798	11%	Degree plus work experience				
15-1099	Computer specialists, all other	8,945	9,357	9,757	812	9%	Associate's degree				
49-9042	Maintenance and repair workers, general	36,980	38,282	39,929	2,949	8%	Moderate-term on-the-job training				
43-5031	Dispatchers	2,256	2,340	2,406	150	7%	Moderate-term on-the-job training				
17-2071	Electrical engineers	4,996	5,060	5,276	280	6%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	3,986	3,989	4,189	203	5%	Associate's degree				
17-3023	Electrical and electronic engineering technicians	4,426	4,435	4,545	119	3%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	88	87	90	2	2%	Postsecondary vocational award				

	Exhibit B-27 MICHIGAN- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
47-4051	Highway maintenance workers	3,321	3,350	3,341	20	1%	Moderate-term on-the-job training					
53-6041	Traffic technicians	109	110	110	1	1%	Short-term on- the-job training					
11-3071	Transportation, storage, and distribution managers	2,674	2,651	2,612	(62)	(2%)	Work experience in a related field					

	Exhibit B-28 MINNESOTA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	7,660	9,138	10,537	2,877	38%	Bachelor's degree				
17-2051	Civil engineers	4,032	4,570	4,961	929	23%	Bachelor's degree				
17-3022	Civil engineering technicians	2,798	3,061	3,232	434	16%	Associate's degree				
49-9097	Signal and track switch repairers	634	701	738	104	16%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	9,566	10,243	10,790	1,224	13%	Degree plus work experience				
15-1099	Computer specialists, all other	8,976	9,622	10,071	1,095	12%	Associate's degree				
49-9042	Maintenance and repair workers, general	19,116	20,361	21,172	2,056	11%	Moderate-term on-the-job training				
43-5031	Dispatchers	1,508	1,612	1,664	156	10%	Moderate-term on-the-job training				
47-2111	Electricians	11,774	12,492	12,714	940	8%	Long-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	1,304	1,316	1,337	33	3%	Associate's degree				
53-6041	Traffic technicians	75	77	77	2	3%	Short-term on- the-job training				
47-4051	Highway maintenance workers	4,768	4,891	4,871	103	2%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	135	133	134	(1)	(1%)	Postsecondary vocational award				

	Exhibit B-28 MINNESOTA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	1,967	1,964	1,924	(43)	(2%)	Work experience in a related field				
17-2071	Electrical engineers	3,905	3,870	3,839	(66)	(2%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	3,020	2,895	2,825	(195)	(6%)	Associate's degree				

	Exhibit B-29 MISSISSIPPI- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,009	1,229	1,409	400	40%	Bachelor's degree				
17-2051	Civil engineers	2,117	2,451	2,673	556	26%	Bachelor's degree				
11-3021	Computer and information systems managers	1,107	1,238	1,339	232	21%	Degree plus work experience				
47-2111	Electricians	6,793	7,709	8,253	1,460	21%	Long-term on- the-job training				
49-9097	Signal and track switch repairers	347	397	415	68	20%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,053	1,169	1,240	187	18%	Associate's degree				
15-1099	Computer specialists, all other	741	812	859	118	16%	Associate's degree				
43-5031	Dispatchers	1,181	1,293	1,364	183	15%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	14,135	15,301	16,317	2,182	15%	Moderate-term on-the-job training				
17-2071	Electrical engineers	994	1,065	1,117	123	12%	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	1,144	1,204	1,245	101	9%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	634	667	687	53	8%	Associate's degree				
47-4051	Highway maintenance workers	2,365	2,500	2,559	194	8%	Moderate-term on-the-job training				

	Exhibit B-29 MISSISSIPPI- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	179	186	191	12	7%	Postsecondary vocational award				
53-6041	Traffic technicians	47	49	50	3	6%	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	905	939	940	35	4%	Work experience in a related field				

	Exhibit B-30 MISSOURI- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	5,856	6,842	7,743	1,887	32%	Bachelor's degree				
49-9097	Signal and track switch repairers	675	777	837	162	24%	Moderate-term on-the-job training				
47-2111	Electricians	13,178	14,902	15,589	2,411	18%	Long-term on- the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	282	308	334	52	18%	Postsecondary vocational award				
17-2051	Civil engineers	5,575	6,013	6,268	693	12%	Bachelor's degree				
11-3021	Computer and information systems managers	5,275	5,620	5,872	597	11%	Degree plus work experience				
43-5031	Dispatchers	2,483	2,641	2,722	239	10%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,871	1,960	2,012	141	8%	Associate's degree				
15-1099	Computer specialists, all other	4,896	5,079	5,170	274	6%	Associate's degree				
49-9042	Maintenance and repair workers, general	29,316	30,469	31,104	1,788	6%	Moderate-term on-the-job training				
17-2071	Electrical engineers	2,455	2,501	2,514	59	2%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	620	630	634	14	2%	Associate's degree				
47-4051	Highway maintenance workers	6,105	6,255	6,210	105	2%	Moderate-term on-the-job training				

	Exhibit B-30 MISSOURI- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
53-6041	Traffic technicians	82	83	82	0	0%	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	1,892	1,895	1,859	(33)	(2%)	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	1,830	1,801	1,780	(50)	(3%)	Associate's degree				

	Exhibit B-31											
	MONTANA- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	863	1,018	1,151	288	33%	Bachelor's degree					
11-3021	Computer and information systems managers	415	457	479	64	15%	Degree plus work experience					
17-2051	Civil engineers	1,278	1,415	1,464	186	15%	Bachelor's degree					
49-9042	Maintenance and repair workers, general	4,811	5,290	5,545	734	15%	Moderate-term on-the-job training					
43-5031	Dispatchers	555	609	631	76	14%	Moderate-term on-the-job training					
49-9097	Signal and track switch repairers	155	170	175	20	13%	Moderate-term on-the-job training					
17-3022	Civil engineering technicians	508	554	564	56	11%	Associate's degree					
17-2071	Electrical engineers	380	408	419	39	10%	Bachelor's degree					
47-2111	Electricians	2,733	2,947	2,976	243	9%	Long-term on- the-job training					
15-1099	Computer specialists, all other	611	645	659	48	8%	Associate's degree					
53-6041	Traffic technicians	13	14	14	1	8%	Short-term on- the-job training					
17-3029	Engineering technicians, except drafters, all other	189	199	202	13	7%	Associate's degree					
47-4051	Highway maintenance workers	387	410	413	26	7%	Moderate-term on-the-job training					
17-3023	Electrical and electronic engineering technicians	367	385	390	23	6%	Associate's degree					

	Exhibit B-31 MONTANA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	59	61	62	3	5%	Postsecondary vocational award				
11-3071	Transportation, storage, and distribution managers	245	245	240	(5)	(2%)	Work experience in a related field				

	Exhibit B-32 NEBRASKA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,433	3,020	3,548	1,115	46%	Bachelor's degree				
17-2051	Civil engineers	1,827	2,135	2,351	524	29%	Bachelor's degree				
47-2111	Electricians	5,660	6,400	7,059	1,399	25%	Long-term on- the-job training				
15-1099	Computer specialists, all other	833	938	1,014	181	22%	Associate's degree				
11-3021	Computer and information systems managers	1,406	1,584	1,701	295	21%	Degree plus work experience				
49-2093	Electrical and electronics installers and repairers, transportation equipment	288	321	345	57	20%	Postsecondary vocational award				
17-3022	Civil engineering technicians	1,001	1,122	1,191	190	19%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	156	171	184	28	18%	Associate's degree				
49-9097	Signal and track switch repairers	364	404	426	62	17%	Moderate-term on-the-job training				
43-5031	Dispatchers	693	755	794	101	15%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	8,411	9,147	9,697	1,286	15%	Moderate-term on-the-job training				
17-2071	Electrical engineers	465	496	519	54	12%	Bachelor's degree				
53-6041	Traffic technicians	11	12	12	1	9%	Short-term on- the-job training				

	Exhibit B-32 NEBRASKA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	740	778	777	37	5%	Work experience in a related field				
47-4051	Highway maintenance workers	2,675	2,787	2,822	147	5%	Moderate-term on-the-job training				
17-3023	Electrical and electronic engineering technicians	418	420	425	7	2%	Associate's degree				

	Exhibit B-33 NEVADA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,106	2,620	2,964	858	41%	Bachelor's degree				
49-9097	Signal and track switch repairers	243	296	321	78	32%	Moderate-term on-the-job training				
17-2051	Civil engineers	2,994	3,634	3,873	879	29%	Bachelor's degree				
43-5031	Dispatchers	593	703	761	168	28%	Moderate-term on-the-job training				
47-2111	Electricians	6,341	7,771	7,943	1,602	25%	Long-term on- the-job training				
11-3021	Computer and information systems managers	1,335	1,548	1,657	322	24%	Degree plus work experience				
49-2093	Electrical and electronics installers and repairers, transportation equipment	53	61	65	12	23%	Postsecondary vocational award				
49-9042	Maintenance and repair workers, general	13,029	14,916	15,969	2,940	23%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,153	1,351	1,408	255	22%	Associate's degree				
15-1099	Computer specialists, all other	1,773	2,017	2,144	371	21%	Associate's degree				
47-4051	Highway maintenance workers	680	771	808	128	19%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	391	437	460	69	18%	Associate's degree				
53-6041	Traffic technicians	19	22	22	3	16%	Short-term on- the-job training				

	Exhibit B-33 NEVADA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	1,001	1,107	1,128	127	13%	Work experience in a related field				
17-2071	Electrical engineers	573	636	641	68	12%	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	1,214	1,330	1,363	149	12%	Associate's degree				

	Exhibit B-34 NEW HAMPSHIRE- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,558	1,861	2,113	555	36%	Bachelor's degree				
17-2051	Civil engineers	1,253	1,435	1,559	306	24%	Bachelor's degree				
47-2111	Electricians	3,203	3,600	3,890	687	21%	Long-term on- the-job training				
17-3022	Civil engineering technicians	208	233	249	41	20%	Associate's degree				
49-9097	Signal and track switch repairers	171	193	206	35	20%	Moderate-term on-the-job training				
43-5031	Dispatchers	883	972	1,030	147	17%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	2,519	2,738	2,878	359	14%	Degree plus work experience				
15-1099	Computer specialists, all other	1,220	1,321	1,381	161	13%	Associate's degree				
49-9042	Maintenance and repair workers, general	5,054	5,440	5,726	672	13%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	1,690	1,796	1,847	157	9%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	35	35	36	1	3%	Postsecondary vocational award				
17-3029	Engineering technicians, except drafters, all other	639	642	649	10	2%	Associate's degree				

	Exhibit B-34 NEW HAMPSHIRE- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	458	464	456	(2)	0%	Work experience in a related field				
17-2071	Electrical engineers	1,303	1,274	1,267	(36)	(3%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	880	829	807	(73)	(8%)	Associate's degree				
53-6041	Traffic technicians	<10	<10	10			Short-term on- the-job training				

	Exhibit B-35 NEW JERSEY- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	13,548	15,983	18,225	4,677	35%	Bachelor's degree				
49-9097	Signal and track switch repairers	753	885	954	201	27%	Moderate-term on-the-job training				
17-2051	Civil engineers	7,647	8,665	9,445	1,798	24%	Bachelor's degree				
17-3022	Civil engineering technicians	1,407	1,531	1,609	202	14%	Associate's degree				
11-3021	Computer and information systems managers	14,494	15,416	16,062	1,568	11%	Degree plus work experience				
49-2093	Electrical and electronics installers and repairers, transportation equipment	311	326	343	32	10%	Postsecondary vocational award				
15-1099	Computer specialists, all other	9,405	9,937	10,215	810	9%	Associate's degree				
47-2111	Electricians	16,357	17,650	17,816	1,459	9%	Long-term on- the-job training				
43-5031	Dispatchers	3,544	3,749	3,798	254	7%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	34,328	35,732	36,395	2,067	6%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	1,174	1,167	1,170	(4)	0%	Associate's degree				
47-4051	Highway maintenance workers	2,101	2,146	2,108	7	0%	Moderate-term on-the-job training				
53-6041	Traffic technicians	217	220	217	0	0%	Short-term on- the-job training				

	Exhibit B-35 NEW JERSEY- Forecasted Occupational Change Summary										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-2071	Electrical engineers	3,801	3,742	3,736	(65)	(2%)	Bachelor's degree				
11-3071	Transportation, storage, and distribution managers	4,405	4,298	4,129	(276)	(6%)	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	3,184	3,008	2,918	(266)	(8%)	Associate's degree				

	Exhibit B-36 NEW MEXICO- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,284	1,521	1,701	417	32%	Bachelor's degree				
43-5031	Dispatchers	669	772	842	173	26%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	188	212	222	34	18%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	797	888	936	139	17%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	9,160	10,003	10,475	1,315	14%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	1,152	1,245	1,279	127	11%	Degree plus work experience				
47-2111	Electricians	4,117	4,504	4,554	437	11%	Long-term on- the-job training				
53-6041	Traffic technicians	72	77	79	7	10%	Short-term on- the-job training				
15-1099	Computer specialists, all other	1,158	1,231	1,262	104	9%	Associate's degree				
17-2051	Civil engineers	2,031	2,152	2,150	119	6%	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	96	101	101	5	5%	Postsecondary vocational award				
17-3022	Civil engineering technicians	710	745	741	31	4%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	460	477	472	12	3%	Work experience in a related field				

	Exhibit B-36 NEW MEXICO- Forecasted Occupational Change Summary										
			2010, 201	5, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3029	Engineering technicians, except drafters, all other	1,113	1,143	1,137	24	2%	Associate's degree				
17-3023	Electrical and electronic engineering technicians	1,979	1,978	1,956	(23)	(1%)	Associate's degree				
17-2071	Electrical engineers	1,150	1,140	1,099	(51)	(4%)	Bachelor's degree				

	Exhibit B-37 NEW YORK- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	27,315	32,285	37,052	9,737	36%	Bachelor's degree				
47-2111	Electricians	39,888	44,133	47,292	7,404	19%	Long-term on- the-job training				
17-2051	Civil engineers	15,125	16,832	17,875	2,750	18%	Bachelor's degree				
49-9097	Signal and track switch repairers	1,930	2,111	2,179	249	13%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	7,162	7,688	8,005	843	12%	Associate's degree				
17-3022	Civil engineering technicians	2,231	2,401	2,478	247	11%	Associate's degree				
11-3021	Computer and information systems managers	24,673	25,976	27,020	2,347	10%	Degree plus work experience				
49-9042	Maintenance and repair workers, general	96,655	101,047	104,413	7,758	8%	Moderate-term on-the-job training				
43-5031	Dispatchers	6,466	6,786	6,873	407	6%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	14,105	14,333	14,128	23	0%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	2,416	2,383	2,376	(40)	(2%)	Associate's degree				
53-6041	Traffic technicians	1,273	1,274	1,236	(37)	(3%)	Short-term on- the-job training				
17-2071	Electrical engineers	9,591	9,307	9,162	(429)	(4%)	Bachelor's degree				

	Exhibit B-37 NEW YORK- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	591	579	562	(29)	(5%)	Postsecondary vocational award				
11-3071	Transportation, storage, and distribution managers	5,099	4,942	4,704	(395)	(8%)	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	7,614	7,107	6,812	(802)	(11%)	Associate's degree				

	Exhibit B-38 NORTH CAROLINA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	9,549	11,784	13,700	4,151	43%	Bachelor's degree				
49-9097	Signal and track switch repairers	1,034	1,216	1,303	269	26%	Moderate-term on-the-job training				
17-2051	Civil engineers	6,799	7,881	8,459	1,660	24%	Bachelor's degree				
47-2111	Electricians	19,277	22,102	23,662	4,385	23%	Long-term on- the-job training				
43-5031	Dispatchers	3,478	3,883	4,148	670	19%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	11,490	12,723	13,553	2,063	18%	Degree plus work experience				
15-1099	Computer specialists, all other	4,572	5,075	5,387	815	18%	Associate's degree				
17-3022	Civil engineering technicians	3,585	3,989	4,167	582	16%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	1,007	1,084	1,144	137	14%	Associate's degree				
49-9042	Maintenance and repair workers, general	45,782	49,293	52,233	6,451	14%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	1,058	1,148	1,189	131	12%	Moderate-term on-the-job training				
17-2071	Electrical engineers	2,638	2,770	2,872	234	9%	Bachelor's degree				
53-6041	Traffic technicians	182	194	198	16	9%	Short-term on- the-job training				
17-3023	Electrical and electronic engineering technicians	2,946	3,044	3,136	190	6%	Associate's degree				

	Exhibit B-38 NORTH CAROLINA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	283	295	299	16	6%	Postsecondary vocational award				
11-3071	Transportation, storage, and distribution managers	2,865	2,931	2,904	39	1%	Work experience in a related field				

	Exhibit B-39 NORTH DAKOTA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	426	517	601	175	41%	Bachelor's degree				
47-2111	Electricians	2,260	2,591	2,871	611	27%	Long-term on- the-job training				
17-2051	Civil engineers	742	843	916	174	23%	Bachelor's degree				
11-3021	Computer and information systems managers	515	582	627	112	22%	Degree plus work experience				
15-1099	Computer specialists, all other	266	292	310	44	17%	Associate's degree				
17-3022	Civil engineering technicians	472	524	554	82	17%	Associate's degree				
49-9097	Signal and track switch repairers	121	132	138	17	14%	Moderate-term on-the-job training				
43-5031	Dispatchers	209	226	234	25	12%	Moderate-term on-the-job training				
17-2071	Electrical engineers	255	276	284	29	11%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	119	127	131	12	10%	Associate's degree				
49-9042	Maintenance and repair workers, general	2,867	3,052	3,153	286	10%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	48	50	52	4	8%	Postsecondary vocational award				
47-4051	Highway maintenance workers	783	820	831	48	6%	Moderate-term on-the-job training				

	Exhibit B-39 NORTH DAKOTA- Forecasted Occupational Change Summary										
	2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	328	343	343	15	5%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	333	340	334	1	0%	Work experience in a related field				
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training				

	Exhibit B-40 OHIO- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	13,533	15,960	18,147	4,614	34%	Bachelor's degree				
17-2051	Civil engineers	7,923	8,608	9,091	1,168	15%	Bachelor's degree				
49-9097	Signal and track switch repairers	1,387	1,504	1,551	164	12%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	9,781	10,403	10,778	997	10%	Degree plus work experience				
43-5031	Dispatchers	4,226	4,471	4,630	404	10%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,970	2,082	2,153	183	9%	Associate's degree				
49-9042	Maintenance and repair workers, general	57,187	58,801	60,592	3,405	6%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	8,680	9,026	9,136	456	5%	Associate's degree				
47-2111	Electricians	25,937	26,864	27,065	1,128	4%	Long-term on- the-job training				
47-4051	Highway maintenance workers	10,096	10,150	10,069	(27)	0%	Moderate-term on-the-job training				
53-6041	Traffic technicians	150	151	150	0	0%	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	4,378	4,356	4,185	(193)	(4%)	Work experience in a related field				
17-2071	Electrical engineers	4,532	4,389	4,338	(194)	(4%)	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	3,507	3,393	3,329	(178)	(5%)	Associate's degree				

	Exhibit B-40 OHIO- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	3,533	3,379	3,325	(208)	(6%)	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	288	279	272	(16)	(6%)	Postsecondary vocational award				

	Exhibit B-41 OKLAHOMA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,649	3,065	3,468	819	31%	Bachelor's degree				
17-2051	Civil engineers	2,200	2,456	2,644	444	20%	Bachelor's degree				
17-3022	Civil engineering technicians	737	814	863	126	17%	Associate's degree				
49-9097	Signal and track switch repairers	395	443	464	69	17%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	293	318	336	43	15%	Postsecondary vocational award				
43-5031	Dispatchers	1,701	1,855	1,938	237	14%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	2,250	2,416	2,545	295	13%	Degree plus work experience				
47-2111	Electricians	8,650	9,309	9,679	1,029	12%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	16,126	17,137	17,649	1,523	9%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	1,545	1,612	1,662	117	8%	Associate's degree				
47-4051	Highway maintenance workers	3,481	3,664	3,710	229	7%	Moderate-term on-the-job training				
53-6041	Traffic technicians	298	311	313	15	5%	Short-term on- the-job training				
17-2071	Electrical engineers	1,628	1,674	1,680	52	3%	Bachelor's degree				

	Exhibit B-41 OKLAHOMA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3029	Engineering technicians, except drafters, all other	784	799	803	19	2%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	1,040	1,048	1,028	(12)	(1%)	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	2,005	2,005	1,972	(33)	(2%)	Associate's degree				

	Exhibit B-42 OREGON- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	3,698	4,329	4,881	1,183	32%	Bachelor's degree				
43-5031	Dispatchers	1,140	1,267	1,343	203	18%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	3,725	4,009	4,209	484	13%	Degree plus work experience				
17-2051	Civil engineers	4,843	5,276	5,463	620	13%	Bachelor's degree				
49-9097	Signal and track switch repairers	450	491	505	55	12%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	14,068	14,991	15,511	1,443	10%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,204	1,288	1,315	111	9%	Associate's degree				
47-4051	Highway maintenance workers	1,967	2,095	2,138	171	9%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	5,663	5,991	6,130	467	8%	Associate's degree				
53-6041	Traffic technicians	67	70	71	4	6%	Short-term on- the-job training				
17-2071	Electrical engineers	1,702	1,728	1,742	40	2%	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	2,727	2,737	2,749	22	1%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	237	241	240	3	1%	Postsecondary vocational award				

	Exhibit B-42 OREGON- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	1,380	1,403	1,375	(5)	0%	Work experience in a related field				
17-3029	Engineering technicians, except drafters, all other	1,618	1,597	1,580	(38)	(2%)	Associate's degree				
47-2111	Electricians	7,364	7,475	7,104	(260)	(4%)	Long-term on- the-job training				

	Exhibit B-43 PENNSYLVANIA- Forecasted Occupational Change Summary										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	10,640	12,449	13,920	3,280	31%	Bachelor's degree				
49-9097	Signal and track switch repairers	1,066	1,182	1,239	173	16%	Moderate-term on-the-job training				
17-2051	Civil engineers	13,150	14,295	14,840	1,690	13%	Bachelor's degree				
11-3021	Computer and information systems managers	9,745	10,376	10,650	905	9%	Degree plus work experience				
43-5031	Dispatchers	3,843	4,039	4,106	263	7%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	2,835	2,985	3,009	174	6%	Associate's degree				
15-1099	Computer specialists, all other	6,860	7,141	7,198	338	5%	Associate's degree				
47-2111	Electricians	26,895	28,013	28,347	1,452	5%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	63,233	65,408	66,639	3,406	5%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	1,626	1,642	1,643	17	1%	Associate's degree				
47-4051	Highway maintenance workers	9,786	9,917	9,798	12	0%	Moderate-term on-the-job training				
53-6041	Traffic technicians	98	99	98	0	0%	Short-term on- the-job training				
11-3071	Transportation, storage, and distribution managers	3,782	3,790	3,658	(124)	(3%)	Work experience in a related field				
17-2071	Electrical engineers	5,673	5,600	5,488	(185)	(3%)	Bachelor's degree				

	Exhibit B-43 PENNSYLVANIA- Forecasted Occupational Change Summary										
			2010, 201		0	•					
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	336	326	317	(19)	(6%)	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	6,993	6,720	6,505	(488)	(7%)	Associate's degree				

	Exhibit B-44 RHODE ISLAND- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	1,160	1,425	1,672	512	44%	Bachelor's degree					
11-3021	Computer and information systems managers	1,235	1,390	1,505	270	22%	Degree plus work experience					
49-9097	Signal and track switch repairers	84	96	102	18	21%	Moderate-term on-the-job training					
17-2051	Civil engineers	745	820	861	116	16%	Bachelor's degree					
15-1099	Computer specialists, all other	1,109	1,202	1,257	148	13%	Associate's degree					
17-3022	Civil engineering technicians	338	362	372	34	10%	Associate's degree					
49-9042	Maintenance and repair workers, general	4,256	4,455	4,564	308	7%	Moderate-term on-the-job training					
43-5031	Dispatchers	412	435	437	25	6%	Moderate-term on-the-job training					
17-3029	Engineering technicians, except drafters, all other	303	313	317	14	5%	Associate's degree					
47-2111	Electricians	2,114	2,211	2,176	62	3%	Long-term on- the-job training					
49-2093	Electrical and electronics installers and repairers, transportation equipment	29	30	30	1	3%	Postsecondary vocational award					
17-2071	Electrical engineers	437	445	445	8	2%	Bachelor's degree					
11-3071	Transportation, storage, and distribution managers	215	221	217	2	1%	Work experience in a related field					

	Exhibit B-44 RHODE ISLAND- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
47-4051	Highway maintenance workers	553	564	553	0	0%	Moderate-term on-the-job training					
17-3023	Electrical and electronic engineering technicians	456	456	452	(4)	(1%)	Associate's degree					
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training					

	Exhibit B-45 SOUTH CAROLINA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	3,524	4,297	4,930	1,406	40%	Bachelor's degree				
49-9097	Signal and track switch repairers	453	539	580	127	28%	Moderate-term on-the-job training				
17-2051	Civil engineers	4,273	4,843	5,371	1,098	26%	Bachelor's degree				
17-3022	Civil engineering technicians	1,278	1,434	1,551	273	21%	Associate's degree				
15-1099	Computer specialists, all other	1,633	1,807	1,923	290	18%	Associate's degree				
43-5031	Dispatchers	1,619	1,803	1,906	287	18%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	2,686	2,950	3,124	438	16%	Degree plus work experience				
49-9042	Maintenance and repair workers, general	26,796	28,410	29,544	2,748	10%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	415	435	453	38	9%	Associate's degree				
17-2071	Electrical engineers	2,162	2,269	2,345	183	8%	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	2,002	2,114	2,167	165	8%	Associate's degree				
47-4051	Highway maintenance workers	534	569	576	42	8%	Moderate-term on-the-job training				
53-6041	Traffic technicians	76	80	80	4	5%	Short-term on- the-job training				

	Exhibit B-45 SOUTH CAROLINA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	1,275	1,334	1,330	55	4%	Work experience in a related field				
49-2093	Electrical and electronics installers and repairers, transportation equipment	207	211	211	4	2%	Postsecondary vocational award				
47-2111	Electricians	8,825	8,967	8,775	(50)	(1%)	Long-term on- the-job training				

	Exhibit B-46 SOUTH DAKOTA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,072	1,353	1,616	544	51%	Bachelor's degree				
47-2111	Electricians	2,058	2,466	2,779	721	35%	Long-term on- the-job training				
17-2051	Civil engineers	862	993	1,078	216	25%	Bachelor's degree				
17-3022	Civil engineering technicians	429	487	518	89	21%	Associate's degree				
11-3021	Computer and information systems managers	243	267	288	45	19%	Degree plus work experience				
49-9042	Maintenance and repair workers, general	2,651	2,918	3,108	457	17%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	233	253	267	34	15%	Associate's degree				
49-9097	Signal and track switch repairers	103	112	116	13	13%	Moderate-term on-the-job training				
17-2071	Electrical engineers	208	224	233	25	12%	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	50	54	56	6	12%	Postsecondary vocational award				
43-5031	Dispatchers	335	359	370	35	10%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	105	110	114	9	9%	Associate's degree				

	Exhibit B-46 SOUTH DAKOTA- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	238	246	250	12	5%	Associate's degree				
47-4051	Highway maintenance workers	1,327	1,378	1,380	53	4%	Moderate-term on-the-job training				
11-3071	Transportation, storage, and distribution managers	148	151	152	4	3%	Work experience in a related field				
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training				

	Exhibit B-47 TENNESSEE- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	4,444	5,356	6,113	1,669	38%	Bachelor's degree				
47-2111	Electricians	15,049	17,255	18,906	3,857	26%	Long-term on- the-job training				
49-9097	Signal and track switch repairers	789	906	955	166	21%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	4,968	5,524	5,961	993	20%	Degree plus work experience				
43-5031	Dispatchers	2,690	2,988	3,180	490	18%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	2,580	2,836	3,012	432	17%	Associate's degree				
17-2051	Civil engineers	3,485	3,859	4,026	541	16%	Bachelor's degree				
17-3022	Civil engineering technicians	1,031	1,123	1,157	126	12%	Associate's degree				
49-9042	Maintenance and repair workers, general	34,127	36,326	38,011	3,884	11%	Moderate-term on-the-job training				
47-4051	Highway maintenance workers	4,141	4,399	4,514	373	9%	Moderate-term on-the-job training				
53-6041	Traffic technicians	660	695	703	43	7%	Short-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	531	546	557	26	5%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	398	410	415	17	4%	Postsecondary vocational award				

	Exhibit B-47 TENNESSEE- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3071	Transportation, storage, and distribution managers	3,097	3,156	3,103	6	0%	Work experience in a related field				
17-2071	Electrical engineers	1,811	1,817	1,792	(19)	(1%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	1,920	1,915	1,905	(15)	(1%)	Associate's degree				

	Exhibit B-48 TEXAS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	26,610	33,089	38,318	11,708	44%	Bachelor's degree				
43-5031	Dispatchers	7,283	8,585	9,511	2,228	31%	Moderate-term on-the-job training				
17-2051	Civil engineers	29,743	35,262	38,785	9,042	30%	Bachelor's degree				
17-3022	Civil engineering technicians	12,184	14,223	15,433	3,249	27%	Associate's degree				
49-9097	Signal and track switch repairers	3,006	3,496	3,716	710	24%	Moderate-term on-the-job training				
47-2111	Electricians	54,012	61,554	65,981	11,969	22%	Long-term on- the-job training				
47-4051	Highway maintenance workers	3,497	3,966	4,236	739	21%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	19,575	21,990	23,539	3,964	20%	Degree plus work experience				
53-6041	Traffic technicians	417	471	499	82	20%	Short-term on- the-job training				
49-9042	Maintenance and repair workers, general	106,383	118,304	126,398	20,015	19%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	11,724	12,994	13,755	2,031	17%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	966	1,030	1,060	94	10%	Postsecondary vocational award				
17-3029	Engineering technicians, except drafters, all other	5,959	6,311	6,510	551	9%	Associate's degree				

	Exhibit B-48 TEXAS- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-2071	Electrical engineers	13,082	13,648	13,932	850	6%	Bachelor's degree				
11-3071	Transportation, storage, and distribution managers	10,305	10,850	10,833	528	5%	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	14,676	14,830	14,834	158	1%	Associate's degree				

	Exhibit B-49 UTAH- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	2,904	3,696	4,402	1,498	52%	Bachelor's degree					
47-2111	Electricians	7,218	9,220	10,701	3,483	48%	Long-term on- the-job training					
17-2051	Civil engineers	2,836	3,577	4,160	1,324	47%	Bachelor's degree					
11-3021	Computer and information systems managers	2,354	2,864	3,354	1,000	42%	Degree plus work experience					
17-3022	Civil engineering technicians	565	700	796	231	41%	Associate's degree					
43-5031	Dispatchers	504	607	678	174	35%	Moderate-term on-the-job training					
15-1099	Computer specialists, all other	2,295	2,634	2,915	620	27%	Associate's degree					
49-9042	Maintenance and repair workers, general	10,678	12,379	13,555	2,877	27%	Moderate-term on-the-job training					
49-9097	Signal and track switch repairers	262	308	328	66	25%	Moderate-term on-the-job training					
47-4051	Highway maintenance workers	946	1,091	1,171	225	24%	Moderate-term on-the-job training					
17-2071	Electrical engineers	1,171	1,346	1,442	271	23%	Bachelor's degree					
53-6041	Traffic technicians	62	71	76	14	23%	Short-term on- the-job training					
17-3029	Engineering technicians, except drafters, all other	420	469	507	87	21%	Associate's degree					

	Exhibit B-49 UTAH- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	69	75	79	10	14%	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	1,464	1,571	1,616	152	10%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	918	985	1,003	85	9%	Work experience in a related field				

	Exhibit B-50 VERMONT- Forecasted Occupational Change Summary 2010, 2015, 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	603	720	829	226	37%	Bachelor's degree					
49-9097	Signal and track switch repairers	92	104	110	18	20%	Moderate-term on-the-job training					
11-3021	Computer and information systems managers	439	477	507	68	15%	Degree plus work experience					
15-1099	Computer specialists, all other	243	263	275	32	13%	Associate's degree					
43-5031	Dispatchers	247	262	268	21	9%	Moderate-term on-the-job training					
17-2051	Civil engineers	676	712	718	42	6%	Bachelor's degree					
49-9042	Maintenance and repair workers, general	3,035	3,102	3,166	131	4%	Moderate-term on-the-job training					
47-2111	Electricians	1,592	1,652	1,606	14	1%	Long-term on- the-job training					
47-4051	Highway maintenance workers	1,146	1,165	1,148	2	0%	Moderate-term on-the-job training					
49-2093	Electrical and electronics installers and repairers, transportation equipment	23	23	23	0	0%	Postsecondary vocational award					
17-3022	Civil engineering technicians	246	249	243	(3)	(1%)	Associate's degree					
11-3071	Transportation, storage, and distribution managers	185	181	175	(10)	(5%)	Work experience in a related field					

	Exhibit B-50 VERMONT- Forecasted Occupational Change Summary 2010, 2015, 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3029	Engineering technicians, except drafters, all other	319	295	282	(37)	(12%)	Associate's degree				
17-2071	Electrical engineers	293	266	254	(39)	(13%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	134	113	102	(32)	(24%)	Associate's degree				
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training				

	Exhibit B-51 VIRGINIA- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
15-1081	Network systems and data communications analysts	17,215	22,706	28,065	10,850	63%	Bachelor's degree	
17-2051	Civil engineers	10,326	12,437	13,992	3,666	36%	Bachelor's degree	
11-3021	Computer and information systems managers	13,416	15,999	17,985	4,569	34%	Degree plus work experience	
17-3022	Civil engineering technicians	2,931	3,439	3,768	837	29%	Associate's degree	
15-1099	Computer specialists, all other	11,473	13,001	14,223	2,750	24%	Associate's degree	
47-2111	Electricians	21,589	24,420	26,128	4,539	21%	Long-term on- the-job training	
43-5031	Dispatchers	2,732	3,054	3,245	513	19%	Moderate-term on-the-job training	
17-3029	Engineering technicians, except drafters, all other	2,714	2,976	3,197	483	18%	Associate's degree	
49-9097	Signal and track switch repairers	1,019	1,137	1,192	173	17%	Moderate-term on-the-job training	
17-2071	Electrical engineers	7,062	7,785	8,211	1,149	16%	Bachelor's degree	
49-9042	Maintenance and repair workers, general	37,054	40,410	42,711	5,657	15%	Moderate-term on-the-job training	
53-6041	Traffic technicians	154	166	172	18	12%	Short-term on- the-job training	
17-3023	Electrical and electronic engineering technicians	5,833	6,175	6,375	542	9%	Associate's degree	
47-4051	Highway maintenance workers	3,321	3,539	3,626	305	9%	Moderate-term on-the-job training	

	Exhibit B-51 VIRGINIA- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
11-3071	Transportation, storage, and distribution managers	1,796	1,865	1,873	77	4%	Work experience in a related field	
49-2093	Electrical and electronics installers and repairers, transportation equipment	810	824	830	20	2%	Postsecondary vocational award	

	Exhibit B-52 WASHINGTON- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
15-1081	Network systems and data communications analysts	12,343	15,154	17,774	5,431	44%	Bachelor's degree	
17-2051	Civil engineers	13,765	15,997	17,396	3,631	26%	Bachelor's degree	
11-3021	Computer and information systems managers	9,415	10,516	11,270	1,855	20%	Degree plus work experience	
49-9097	Signal and track switch repairers	633	713	752	119	19%	Moderate-term on-the-job training	
17-3022	Civil engineering technicians	2,386	2,667	2,802	416	17%	Associate's degree	
15-1099	Computer specialists, all other	9,229	10,132	10,729	1,500	16%	Associate's degree	
43-5031	Dispatchers	1,659	1,808	1,879	220	13%	Moderate-term on-the-job training	
47-2111	Electricians	16,167	17,907	18,117	1,950	12%	Long-term on- the-job training	
49-9042	Maintenance and repair workers, general	24,580	26,183	26,958	2,378	10%	Moderate-term on-the-job training	
17-3029	Engineering technicians, except drafters, all other	3,302	3,431	3,539	237	7%	Associate's degree	
47-4051	Highway maintenance workers	3,069	3,220	3,227	158	5%	Moderate-term on-the-job training	
53-6041	Traffic technicians	164	173	173	9	5%	Short-term on- the-job training	
17-2071	Electrical engineers	3,717	3,835	3,875	158	4%	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	2,897	2,902	2,872	(25)	(1%)	Associate's degree	

	Exhibit B-52 WASHINGTON- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
49-2093	Electrical and electronics installers and repairers, transportation equipment	446	445	438	(8)	(2%)	Postsecondary vocational award	
11-3071	Transportation, storage, and distribution managers	2,668	2,657	2,575	(93)	(3%)	Work experience in a related field	

	Exhibit B-53 WEST VIRGINIA- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level	
15-1081	Network systems and data communications analysts	1,028	1,225	1,413	385	37%	Bachelor's degree	
17-2051	Civil engineers	1,461	1,608	1,710	249	17%	Bachelor's degree	
11-3021	Computer and information systems managers	711	774	823	112	16%	Degree plus work experience	
49-9097	Signal and track switch repairers	155	168	173	18	12%	Moderate-term on-the-job training	
15-1099	Computer specialists, all other	1,362	1,451	1,516	154	11%	Associate's degree	
17-3022	Civil engineering technicians	742	795	824	82	11%	Associate's degree	
43-5031	Dispatchers	826	881	909	83	10%	Moderate-term on-the-job training	
17-3029	Engineering technicians, except drafters, all other	307	322	334	27	9%	Associate's degree	
47-2111	Electricians	5,455	5,747	5,879	424	8%	Long-term on- the-job training	
53-6041	Traffic technicians	17	18	18	1	6%	Short-term on- the-job training	
49-9042	Maintenance and repair workers, general	9,703	9,956	10,108	405	4%	Moderate-term on-the-job training	
47-4051	Highway maintenance workers	464	477	477	13	3%	Moderate-term on-the-job training	
17-2071	Electrical engineers	446	453	456	10	2%	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	585	594	596	11	2%	Associate's degree	

	Exhibit B-53 WEST VIRGINIA- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
49-2093	Electrical and electronics installers and repairers, transportation equipment	65	66	66	1	2%	Postsecondary vocational award	
11-3071	Transportation, storage, and distribution managers	479	478	466	(13)	(3%)	Work experience in a related field	

	Exhibit B-54 WISCONSIN- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
15-1081	Network systems and data communications analysts	7,713	9,190	10,439	2,726	35%	Bachelor's degree	
17-2051	Civil engineers	4,826	5,400	5,715	889	18%	Bachelor's degree	
47-2111	Electricians	13,674	14,992	15,985	2,311	17%	Long-term on- the-job training	
49-9097	Signal and track switch repairers	577	646	677	100	17%	Moderate-term on-the-job training	
15-1099	Computer specialists, all other	1,878	2,051	2,129	251	13%	Associate's degree	
11-3021	Computer and information systems managers	5,734	6,165	6,395	661	12%	Degree plus work experience	
17-3022	Civil engineering technicians	1,244	1,327	1,346	102	8%	Associate's degree	
43-5031	Dispatchers	1,487	1,563	1,591	104	7%	Moderate-term on-the-job training	
49-9042	Maintenance and repair workers, general	25,315	26,382	27,181	1,866	7%	Moderate-term on-the-job training	
53-6041	Traffic technicians	39	41	40	1	3%	Short-term on- the-job training	
17-3029	Engineering technicians, except drafters, all other	596	598	594	(2)	0%	Associate's degree	
47-4051	Highway maintenance workers	5,383	5,452	5,357	(26)	0%	Moderate-term on-the-job training	
49-2093	Electrical and electronics installers and repairers, transportation equipment	273	274	273	0	0%	Postsecondary vocational award	

	Exhibit B-54 WISCONSIN- Forecasted Occupational Change Summary 2010, 2015, 2020						
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	1,988	1,985	1,916	(72)	(4%)	Work experience in a related field
17-2071	Electrical engineers	3,366	3,294	3,241	(125)	(4%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	2,893	2,788	2,709	(184)	(6%)	Associate's degree

	Exhibit B-55 WYOMING- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
47-2111	Electricians	2,995	3,697	4,187	1,192	40%	Long-term on- the-job training	
15-1081	Network systems and data communications analysts	393	469	534	141	36%	Bachelor's degree	
17-2051	Civil engineers	833	982	1,071	238	29%	Bachelor's degree	
17-3022	Civil engineering technicians	130	151	162	32	25%	Associate's degree	
17-2071	Electrical engineers	291	328	346	55	19%	Bachelor's degree	
11-3021	Computer and information systems managers	211	237	249	38	18%	Degree plus work experience	
49-9042	Maintenance and repair workers, general	4,108	4,619	4,850	742	18%	Moderate-term on-the-job training	
43-5031	Dispatchers	339	379	396	57	17%	Moderate-term on-the-job training	
49-9097	Signal and track switch repairers	113	123	126	13	12%	Moderate-term on-the-job training	
47-4051	Highway maintenance workers	320	347	351	31	10%	Moderate-term on-the-job training	
15-1099	Computer specialists, all other	229	244	249	20	9%	Associate's degree	
53-6041	Traffic technicians	11	11	12	1	9%	Short-term on- the-job training	
49-2093	Electrical and electronics installers and repairers, transportation equipment	84	89	90	6	7%	Postsecondary vocational award	

	Exhibit B-55 WYOMING- Forecasted Occupational Change Summary 2010, 2015, 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
11-3071	Transportation, storage, and distribution managers	177	188	188	11	6%	Work experience in a related field	
17-3023	Electrical and electronic engineering technicians	182	193	193	11	6%	Associate's degree	
17-3029	Engineering technicians, except drafters, all other	143	151	152	9	6%	Associate's degree	

Appendix C

Region- and State-level Forecasted Renewal Systems Expanded Occupational Change Summary: 2010, 2015, 2020

Appendix C C-1

This appendix first presents the forecasted expanded occupational data for SOM positions in each of the United States' four regions, which include the Northeast, Midwest, West, and South. The expanded occupational estimates are derived from both the 'related' and 'core' SOC codes. The following table provides an overview of the specific states represented in each regional area.

States Included in Each Regional Area Used to Conduct Occupational Analysis								
Regions	State Areas							
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont							
Midwest	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin							
West	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming							
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia							

Following the regional tables are the 50 state tables and the District of Columbia. These tables appear in alphabetical order.

Appendix C

Region-level Forecasted Renewal Systems Expanded Occupational Change Summary: 2010, 2015, 2020

In the table below, Exhibit C-1, the forecasted expanded occupation renewal estimates is provided for the Northeast region. The Northeast region includes: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

	Exhibit C-1 NORTHEAST - Forecasted Renewal Systems – Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	69,526	82,110	93,773	24,247	35%	Bachelor's degree					
13-1051	Cost estimators	36,224	40,684	44,119	7,895	22%	Work experience in a related field					
11-9021	Construction managers	122,226	138,553	145,926	23,700	19%	Bachelor's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	153,194	172,063	181,311	28,117	18%	Work experience in a related field					
49-9097	Signal and track switch repairers	5,295	5,936	6,228	933	18%	Moderate-term on-the-job training					
15-2031	Operations research analysts	9,450	10,356	11,022	1,572	17%	Master's degree					
17-2051	Civil engineers	52,400	57,824	61,133	8,733	17%	Bachelor's degree					
11-1011	Chief executives	226,755	252,357	263,163	36,408	16%	Degree plus work experience					
15-1011	Computer and information scientists, research	13,069	14,376	15,199	2,130	16%	Doctoral degree					
13-1061	Emergency management specialists	3,475	3,813	3,996	521	15%	Work experience in a related field					
17-1012	Landscape architects	10,376	11,351	11,730	1,354	13%	Bachelor's degree					
47-4011	Construction and building inspectors	24,598	26,642	27,497	2,899	12%	Work experience in a related field					

Exhibit C-1 NORTHEAST - Forecasted Renewal Systems – Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-3021	Computer and information systems managers	74,177	78,925	82,434	8,257	11%	Degree plus work experience					
47-2111	Electricians	115,890	124,601	128,477	12,587	11%	Long-term on- the-job training					
17-3011	Architectural and civil drafters	19,438	21,055	21,405	1,967	10%	Postsecondary vocational award					
15-1099	Computer specialists, all other	34,067	36,140	37,274	3,207	9%	Associate's degree					
17-1022	Surveyors	8,203	8,778	8,932	729	9%	Bachelor's degree					
17-3022	Civil engineering technicians	9,050	9,658	9,898	848	9%	Associate's degree					
29-9011	Occupational health and safety specialists	9,647	10,078	10,295	648	7%	Bachelor's degree					
43-5031	Police, fire, and ambulance dispatchers	20,317	21,351	21,645	1,328	7%	Moderate-term on-the-job training					
49-9042	Maintenance and repair workers, general	247,061	257,732	264,789	17,728	7%	Moderate-term on-the-job training					
11-3011	Administrative services managers	51,821	54,081	55,081	3,260	6%	Degree plus work experience					
11-9041	Engineering managers	31,264	31,433	31,838	574	2%	Degree plus work experience					
17-3029	Engineering technicians, except drafters, all other	8,644	8,639	8,660	16	0%	Associate's degree					
47-4051	Highway maintenance workers	36,541	37,137	36,641	100	0%	Moderate-term on-the-job training					
33-3051	Police and sheriff's patrol officers	134,215	135,760	133,186	(1,029)	(1%)	Long-term on- the-job training					
11-1021	General and operations managers	294,173	294,610	288,030	(6,143)	(2%)	Degree plus work experience					

	Exhibit C-1 NORTHEAST - Forecasted Renewal Systems – Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,122	2,097	2,072	(50)	(2%)	Postsecondary vocational award				
53-6041	Traffic technicians	1,807	1,816	1,769	(38)	(2%)	Short-term on- the-job training				
17-2071	Electrical engineers	31,068	30,277	29,886	(1,182)	(4%)	Bachelor's degree				
17-2072	Electronics engineers, except computer	23,507	22,681	22,462	(1,045)	(4%)	Bachelor's degree				
11-3071	Transportation, storage, and distribution managers	17,713	17,425	16,760	(953)	(5%)	Work experience in a related field				
17-3023	Electrical and electronic engineering technicians	29,751	28,118	27,236	(2,515)	(8%)	Associate's degree				
43-2099	Communications equipment operators, all other	475	444	403	(72)	(15%)	Short-term on- the-job training				

The following table, Exhibit C-2, provides the forecasted renewal summary for the Midwest region. The Midwest region includes: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

	Exhibit C-2 MIDWEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	SOC DOL Standard # of 2010 # of 2015 # of 2020 (2010- (2010- Education										
15-1081	Network systems and data communications analysts	69,639	82,941	95,028	25,389	36%	Bachelor's degree				

Exhibit C-2 MIDWEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
13-1051	Cost estimators	50,281	56,600	61,956	11,675	23%	Work experience in a related field					
17-2051	Civil engineers	49,147	54,723	58,800	9,653	20%	Bachelor's degree					
15-2031	Operations research analysts	11,162	12,334	13,285	2,123	19%	Master's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	181,668	202,079	211,801	30,133	17%	Work experience in a related field					
11-9021	Construction managers	142,042	158,262	164,925	22,883	16%	Bachelor's degree					
13-1061	Emergency management specialists	3,613	3,966	4,193	580	16%	Work experience in a related field					
15-1011	Computer and information scientists, research	9,622	10,573	11,156	1,534	16%	Doctoral degree					
11-1011	Chief executives	256,476	282,582	294,058	37,582	15%	Degree plus work experience					
49-9097	Signal and track switch repairers	8,169	9,016	9,431	1,262	15%	Moderate-term on-the-job training					
11-3021	Computer and information systems managers	64,007	69,042	73,035	9,028	14%	Degree plus work experience					
17-1022	Surveyors	9,325	10,175	10,628	1,303	14%	Bachelor's degree					
17-3022	Civil engineering technicians	16,982	18,374	19,287	2,305	14%	Associate's degree					
47-4011	Construction and building inspectors	21,268	23,122	24,147	2,879	14%	Work experience in a related field					
17-1012	Landscape architects	9,709	10,588	10,990	1,281	13%	Bachelor's degree					

Exhibit C-2 MIDWEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
47-2111	Electricians	152,172	163,866	171,556	19,384	13%	Long-term on- the-job training				
43-5031	Police, fire, and ambulance dispatchers	21,277	22,747	23,694	2,417	11%	Moderate-term on-the-job training				
11-3011	Administrative services managers	53,927	57,132	59,144	5,217	10%	Degree plus work experience				
15-1099	Computer specialists, all other	56,186	59,712	61,944	5,758	10%	Associate's degree				
17-3011	Architectural and civil drafters	17,226	18,425	18,793	1,567	9%	Postsecondary vocational award				
49-9042	Maintenance and repair workers, general	300,923	314,749	326,889	25,966	9%	Moderate-term on-the-job training				
29-9011	Occupational health and safety specialists	10,604	11,084	11,395	791	7%	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,585	2,648	2,703	118	5%	Postsecondary vocational award				
11-9041	Engineering managers	38,792	39,246	40,352	1,560	4%	Degree plus work experience				
17-3029	Engineering technicians, except drafters, all other	15,159	15,217	15,557	398	3%	Associate's degree				
53-6041	Traffic technicians	738	757	757	19	3%	Short-term on- the-job training				
33-3051	Police and sheriff's patrol officers	130,587	133,394	133,608	3,021	2%	Long-term on- the-job training				
47-4051	Highway maintenance workers	51,192	52,404	52,440	1,248	2%	Moderate-term on-the-job training				
17-2071	Electrical engineers	30,590	30,496	30,806	216	1%	Bachelor's degree				

all other

Exhibit C-2 MIDWEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020 % Change Change # of 2015 SOC **DOL Standard** # of 2010 # of 2020 (2010-(2010-Education Code **Occupation Title Jobs** 2020) 2020) Level **Jobs Jobs** Degree plus General and 11-1021 312,367 316,529 313,269 902 0% work operations managers experience Electronics Bachelor's 17-2072 engineers, except 21,645 21,631 0% 21,484 (14)degree computer Transportation, Work storage, and 11-3071 23,212 23,266 22,725 (487)(2%) experience in a distribution related field managers Electrical and Associate's electronic 17-3023 26,991 (2%) 26,451 26,367 (624)engineering degree technicians Communications Short-term on-43-2099 476 452 (59) (12%) equipment operators, 417 the-job training

Exhibit C-3 provides the forecasted renewal summary for the West region. The West region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

	Exhibit C-3 WEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	88,349	107,035	123,880	35,531	40%	Bachelor's degree				
13-1061	Emergency management specialists	3,547	4,090	4,416	869	24%	Work experience in a related field				
15-2031	Operations research analysts	12,313	14,038	15,283	2,970	24%	Master's degree				

Exhibit C-3 WEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
13-1051	Cost estimators	48,769	56,442	59,942	11,173	23%	Work experience in a related field					
17-2051	Civil engineers	91,175	103,909	110,811	19,636	22%	Bachelor's degree					
43-5031	Police, fire, and ambulance dispatchers	16,062	18,137	19,378	3,316	21%	Moderate-term on-the-job training					
11-1011	Chief executives	291,190	328,949	346,174	54,984	19%	Degree plus work experience					
15-1011	Computer and information scientists, research	19,642	21,905	23,432	3,790	19%	Doctoral degree					
47-4011	Construction and building inspectors	31,302	35,305	37,180	5,878	19%	Work experience in a related field					
49-9097	Signal and track switch repairers	7,918	8,961	9,387	1,469	19%	Moderate-term on-the-job training					
11-3021	Computer and information systems managers	71,660	78,989	84,641	12,981	18%	Degree plus work experience					
11-9021	Construction managers	143,305	163,441	168,224	24,919	17%	Bachelor's degree					
17-3022	Civil engineering technicians	18,966	21,239	22,244	3,278	17%	Associate's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	205,648	234,580	240,595	34,947	17%	Work experience in a related field					
11-3011	Administrative services managers	53,653	58,681	61,488	7,835	15%	Degree plus work experience					
15-1099	Computer specialists, all other	71,925	78,259	82,691	10,766	15%	Associate's degree					
17-1022	Surveyors	14,519	16,262	16,761	2,242	15%	Bachelor's degree					

Exhibit C-3 WEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
49-9042	Maintenance and repair workers, general	277,973	302,607	316,356	38,383	14%	Moderate-term on-the-job training					
17-1012	Landscape architects	17,510	19,154	19,717	2,207	13%	Bachelor's degree					
29-9011	Occupational health and safety specialists	12,478	13,561	14,144	1,666	13%	Bachelor's degree					
47-2111	Electricians	142,760	158,357	160,950	18,190	13%	Long-term on- the-job training					
33-3051	Police and sheriff's patrol officers	131,477	142,455	147,319	15,842	12%	Long-term on- the-job training					
47-4051	Highway maintenance workers	18,310	19,831	20,382	2,072	11%	Moderate-term on-the-job training					
53-6041	Traffic technicians	1,491	1,600	1,635	144	10%	Short-term on- the-job training					
17-3011	Architectural and civil drafters	31,429	34,354	34,398	2,969	9%	Postsecondary vocational award					
11-9041	Engineering managers	53,292	55,060	56,694	3,402	6%	Degree plus work experience					
17-3029	Engineering technicians, except drafters, all other	22,047	22,818	23,386	1,339	6%	Associate's degree					
11-1021	General and operations managers	479,630	500,508	497,867	18,237	4%	Degree plus work experience					
49-2093	Electrical and electronics installers and repairers, transportation equipment	2,714	2,782	2,807	93	3%	Postsecondary vocational award					
17-2071	Electrical engineers	37,712	38,107	38,286	574	2%	Bachelor's degree					
11-3071	Transportation, storage, and distribution managers	23,903	24,507	24,193	290	1%	Work experience in a related field					

	Exhibit C-3 WEST - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-2072	Electronics engineers, except computer	49,281	48,319	48,444	(837)	(2%)	Bachelor's degree				
17-3023	Electrical and electronic engineering technicians	39,671	38,995	38,588	(1,083)	(3%)	Associate's degree				
43-2099	Communications equipment operators, all other	685	663	618	(67)	(10%)	Short-term on- the-job training				

Exhibit C-4 provides the occupational renewal summary for the South region. The South region includes: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

	Exhibit C-4 SOUTH - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	128,574	160,549	188,294	59,720	46%	Bachelor's degree					
13-1051	Cost estimators	72,155	85,442	94,513	22,358	31%	Work experience in a related field					
15-2031	Operations research analysts	30,521	35,263	38,691	8,170	27%	Master's degree					
13-1061	Emergency management specialists	6,188	7,124	7,729	1,541	25%	Work experience in a related field					
17-2051	Civil engineers	109,648	126,811	137,424	27,776	25%	Bachelor's degree					
49-9097	Signal and track switch repairers	13,167	15,373	16,353	3,186	24%	Moderate-term on-the-job training					

Exhibit C-4 SOUTH - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1011	Computer and information scientists, research	23,789	27,038	29,183	5,394	23%	Doctoral degree					
11-1011	Chief executives	455,334	523,394	554,258	98,924	22%	Degree plus work experience					
11-9021	Construction managers	297,114	343,326	362,951	65,837	22%	Bachelor's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	436,092	502,140	531,117	95,025	22%	Work experience in a related field					
47-4011	Construction and building inspectors	43,454	49,592	52,808	9,354	22%	Work experience in a related field					
11-3021	Computer and information systems managers	96,866	108,829	117,273	20,407	21%	Degree plus work experience					
17-3022	Civil engineering technicians	37,335	42,357	45,096	7,761	21%	Associate's degree					
43-5031	Police, fire, and ambulance dispatchers	40,349	45,370	48,521	8,172	20%	Moderate-term on-the-job training					
17-1012	Landscape architects	20,285	22,879	23,975	3,690	18%	Bachelor's degree					
11-3011	Administrative services managers	91,334	100,583	105,983	14,649	16%	Degree plus work experience					
17-1022	Surveyors	20,432	22,867	23,783	3,351	16%	Bachelor's degree					
15-1099	Computer specialists, all other	75,604	82,432	87,052	11,448	15%	Associate's degree					
47-2111	Electricians	253,186	279,639	291,457	38,271	15%	Long-term on- the-job training					
49-9042	Maintenance and repair workers, general	529,719	574,994	605,434	75,715	14%	Moderate-term on-the-job training					
29-9011	Occupational health and safety specialists	20,090	21,727	22,692	2,602	13%	Bachelor's degree					

Exhibit C-4 SOUTH - Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
11-9041	Engineering managers	54,221	58,239	60,859	6,638	12%	Degree plus work experience			
33-3051	Police and sheriff's patrol officers	236,491	255,866	264,462	27,971	12%	Long-term on- the-job training			
17-3011	Architectural and civil drafters	38,660	42,289	42,803	4,143	11%	Postsecondary vocational award			
47-4051	Highway maintenance workers	34,833	37,371	38,425	3,592	10%	Moderate-term on-the-job training			
17-3029	Engineering technicians, except drafters, all other	24,169	25,499	26,403	2,234	9%	Associate's degree			
53-6041	Traffic technicians	2,856	3,058	3,123	267	9%	Short-term on- the-job training			
17-2071	Electrical engineers	52,756	55,451	56,794	4,038	8%	Bachelor's degree			
17-2072	Electronics engineers, except computer	43,812	45,498	46,870	3,058	7%	Bachelor's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	6,192	6,442	6,567	375	6%	Postsecondary vocational award			
11-1021	General and operations managers	741,093	778,204	781,134	40,041	5%	Degree plus work experience			
11-3071	Transportation, storage, and distribution managers	36,908	38,227	37,965	1,057	3%	Work experience in a related field			
17-3023	Electrical and electronic engineering technicians	55,374	56,566	57,058	1,684	3%	Associate's degree			
43-2099	Communications equipment operators, all other	1,112	1,065	985	(127)	(11%)	Short-term on- the-job training			

State-level Forecasted Renewal Systems Expanded Occupational Change Summary: 2010, 2015, 2020

Exhibit C-5
ALABAMA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	2,996	3,668	4,235	1,239	41%	Bachelor's degree					
13-1051	Cost estimators	2,677	3,169	3,536	859	32%	Work experience in a related field					
15-1011	Computer and information scientists, research	905	1,045	1,152	247	27%	Doctoral degree					
49-9097	Signal and track switch repairers	468	557	596	128	27%	Moderate-term on-the-job training					
15-2031	Operations research analysts	635	727	793	158	25%	Master's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	17,557	20,275	21,724	4,167	24%	Work experience in a related field					
11-9021	Construction managers	11,754	13,624	14,414	2,660	23%	Bachelor's degree					
17-2051	Civil engineers	4,970	5,706	6,068	1,098	22%	Bachelor's degree					
11-1011	Chief executives	14,412	16,420	17,324	2,912	20%	Degree plus work experience					
11-3021	Computer and information systems managers	2,422	2,719	2,910	488	20%	Degree plus work experience					
17-1012	Landscape architects	647	740	774	127	20%	Bachelor's degree					
47-4011	Construction and building inspectors	2,019	2,294	2,416	397	20%	Work experience in a related field					
13-1061	Emergency management specialists	351	390	413	62	18%	Work experience in a related field					
15-1099	Computer specialists, all other	2,497	2,766	2,956	459	18%	Associate's degree					

Exhibit C-5 ALABAMA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
43-5031	Dispatchers	2,540	2,806	2,963	423	17%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	1,187	1,286	1,366	179	15%	Associate's degree				
49-9042	Maintenance and repair workers, general	18,346	19,880	21,081	2,735	15%	Moderate-term on-the-job training				
11-3011	Administrative services managers	1,369	1,493	1,562	193	14%	Degree plus work experience				
11-9041	Engineering managers	2,425	2,638	2,758	333	14%	Degree plus work experience				
47-2111	Electricians	10,540	11,610	12,018	1,478	14%	Long-term on- the-job training				
17-3022	Civil engineering technicians	1,921	2,115	2,171	250	13%	Associate's degree				
29-9011	Occupational health and safety specialists	720	770	801	81	11%	Bachelor's degree				
17-2072	Electronics engineers, except computer	1,885	1,982	2,057	172	9%	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	314	333	341	27	9%	Postsecondary vocational award				
17-2071	Electrical engineers	3,430	3,620	3,657	227	7%	Bachelor's degree				
33-3051	Police and sheriff's patrol officers	10,720	11,319	11,494	774	7%	Long-term on- the-job training				
53-6041	Traffic technicians	67	71	72	5	7%	Short-term on- the-job training				
47-4051	Highway maintenance workers	3,342	3,511	3,550	208	6%	Moderate-term on-the-job training				
17-1022	Surveyors	1,039	1,104	1,092	53	5%	Bachelor's degree				

Exhibit C-5
ALABAMA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-1021	General and operations managers	34,726	36,055	35,975	1,249	4%	Degree plus work experience
17-3011	Architectural and civil drafters	1,355	1,438	1,410	55	4%	Postsecondary vocational award
11-3071	Transportation, storage, and distribution managers	980	1,009	1,001	21	2%	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	1,527	1,559	1,565	38	2%	Associate's degree
43-2099	Communications equipment operators, all other	40	39	36	(4)	(10%)	Short-term on- the-job training

Exhibit C-6 ALASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1081	Network systems and data communications analysts	563	674	768	205	36%	Bachelor's degree			
13-1051	Cost estimators	356	423	482	126	35%	Work experience in a related field			
17-2051	Civil engineers	1,582	1,809	1,958	376	24%	Bachelor's degree			
15-2031	Operations research analysts	69	78	85	16	23%	Master's degree			
11-9021	Construction managers	2,198	2,477	2,676	478	22%	Bachelor's degree			

Exhibit C-6 ALASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
13-1061	Emergency management specialists	72	82	88	16	22%	Work experience in a related field				
11-9041	Engineering managers	364	408	435	71	20%	Degree plus work experience				
17-1022	Surveyors	518	590	617	99	19%	Bachelor's degree				
17-3022	Civil engineering technicians	347	390	413	66	19%	Associate's degree				
49-9097	Signal and track switch repairers	80	91	95	15	19%	Moderate-term on-the-job training				
15-1011	Computer and information scientists, research	129	143	152	23	18%	Doctoral degree				
11-3021	Computer and information systems managers	455	496	528	73	16%	Degree plus work experience				
47-2111	Electricians	2,620	2,862	3,038	418	16%	Long-term on- the-job training				
47-4011	Construction and building inspectors	380	420	442	62	16%	Work experience in a related field				
47-1011	First-line supervisors/managers of construction trades and extraction workers	2,620	2,886	3,008	388	15%	Work experience in a related field				
11-1011	Chief executives	3,422	3,722	3,889	467	14%	Degree plus work experience				
17-2071	Electrical engineers	682	747	779	97	14%	Bachelor's degree				
43-5031	Dispatchers	373	407	427	54	14%	Moderate-term on-the-job training				
49-9042	Maintenance and repair workers, general	4,277	4,593	4,845	568	13%	Moderate-term on-the-job training				

Exhibit C-6
ALASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level				
17-2072	Electronics engineers, except computer	130	139	146	16	12%	Bachelor's degree				
17-3011	Architectural and civil drafters	303	334	339	36	12%	Postsecondary vocational award				
49-2093	Electrical and electronics installers and repairers, transportation equipment	17	18	19	2	12%	Postsecondary vocational award				
11-3011	Administrative services managers	1,370	1,466	1,514	144	11%	Degree plus work experience				
17-1012	Landscape architects	149	160	164	15	10%	Bachelor's degree				
47-4051	Highway maintenance workers	125	133	137	12	10%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	589	620	643	54	9%	Associate's degree				
17-3029	Engineering technicians, except drafters, all other	467	491	504	37	8%	Associate's degree				
29-9011	Occupational health and safety specialists	335	354	360	25	7%	Bachelor's degree				
33-3051	Police and sheriff's patrol officers	1,257	1,324	1,348	91	7%	Long-term on- the-job training				
17-3023	Electrical and electronic engineering technicians	764	800	796	32	4%	Associate's degree				
11-1021	General and operations managers	9,197	9,320	9,214	17	0%	Degree plus work experience				
11-3071	Transportation, storage, and distribution managers	610	616	612	2	0%	Work experience in a related field				
43-2099	Communications equipment operators, all other	20	19	18	(2)	(10%)	Short-term on- the-job training				

	Exhibit C-6 ALASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training			

	Exhibit C-7 ARIZONA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	5,928	7,171	8,101	2,173	37%	Bachelor's degree					
17-2051	Civil engineers	4,580	5,532	6,150	1,570	34%	Bachelor's degree					
17-1022	Surveyors	1,504	1,816	1,986	482	32%	Bachelor's degree					
17-3022	Civil engineering technicians	1,834	2,178	2,387	553	30%	Associate's degree					
11-1011	Chief executives	21,149	24,868	26,501	5,352	25%	Degree plus work experience					
47-4011	Construction and building inspectors	3,193	3,727	4,007	814	25%	Work experience in a related field					
49-9097	Signal and track switch repairers	606	712	751	145	24%	Moderate-term on-the-job training					
13-1061	Emergency management specialists	277	321	342	65	23%	Work experience in a related field					
17-1012	Landscape architects	1,526	1,759	1,872	346	23%	Bachelor's degree					
17-3011	Architectural and civil drafters	2,511	2,931	3,099	588	23%	Postsecondary vocational award					

Exhibit C-7
ARIZONA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-2031	Operations research analysts	978	1,113	1,186	208	21%	Master's degree					
43-5031	Dispatchers	1,825	2,084	2,193	368	20%	Moderate-term on-the-job training					
11-9021	Construction managers	10,397	12,209	12,417	2,020	19%	Bachelor's degree					
15-1011	Computer and information scientists, research	1,094	1,228	1,306	212	19%	Doctoral degree					
13-1051	Cost estimators	3,454	3,991	4,056	602	17%	Work experience in a related field					
11-3011	Administrative services managers	5,518	6,137	6,390	872	16%	Degree plus work experience					
11-3021	Computer and information systems managers	4,374	4,843	5,067	693	16%	Degree plus work experience					
49-9042	Maintenance and repair workers, general	27,839	30,832	32,237	4,398	16%	Moderate-term on-the-job training					
15-1099	Computer specialists, all other	2,764	3,041	3,192	428	15%	Associate's degree					
29-9011	Occupational health and safety specialists	742	816	850	108	15%	Bachelor's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	14,681	16,904	16,818	2,137	15%	Work experience in a related field					
47-4051	Highway maintenance workers	1,535	1,688	1,729	194	13%	Moderate-term on-the-job training					
17-3029	Engineering technicians, except drafters, all other	966	1,023	1,061	95	10%	Associate's degree					
33-3051	Police and sheriff's patrol officers	12,847	13,901	14,055	1,208	9%	Long-term on- the-job training					
53-6041	Traffic technicians	102	111	111	9	9%	Short-term on- the-job training					

Exhibit C-7 ARIZONA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-9041	Engineering managers	4,495	4,725	4,867	372	8%	Degree plus work experience
47-2111	Electricians	12,334	13,580	13,248	914	7%	Long-term on- the-job training
11-1021	General and operations managers	40,890	43,415	42,938	2,048	5%	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	1,932	2,019	2,000	68	4%	Work experience in a related field
17-2071	Electrical engineers	4,370	4,489	4,508	138	3%	Bachelor's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	161	164	161	0	0%	Postsecondary vocational award
17-2072	Electronics engineers, except computer	4,472	4,348	4,284	(188)	(4%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	4,830	4,605	4,414	(416)	(9%)	Associate's degree
43-2099	Communications equipment operators, all other	94	92	85	(9)	(10%)	Short-term on- the-job training

Exhibit C-8 ARKANSAS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,993	3,871	4,701	1,708	57%	Bachelor's degree				
15-2031	Operations research analysts	314	374	424	110	35%	Master's degree				
13-1051	Cost estimators	1,170	1,339	1,501	331	28%	Work experience in a related field				
13-1061	Emergency management specialists	166	191	212	46	28%	Work experience in a related field				
11-3021	Computer and information systems managers	1,517	1,730	1,900	383	25%	Degree plus work experience				
17-2051	Civil engineers	1,770	2,017	2,196	426	24%	Bachelor's degree				
43-5031	Dispatchers	1,225	1,378	1,501	276	23%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	438	494	529	91	21%	Associate's degree				
47-1011	First-line supervisors/managers of construction trades and extraction workers	10,682	11,940	12,814	2,132	20%	Work experience in a related field				
15-1011	Computer and information scientists, research	215	238	256	41	19%	Doctoral degree				
29-9011	Occupational health and safety specialists	401	445	477	76	19%	Bachelor's degree				
47-4011	Construction and building inspectors	916	1,023	1,091	175	19%	Work experience in a related field				
11-3011	Administrative services managers	3,080	3,391	3,609	529	17%	Degree plus work experience				
47-2111	Electricians	6,425	7,042	7,538	1,113	17%	Long-term on- the-job training				
11-1011	Chief executives	10,095	11,179	11,727	1,632	16%	Degree plus work experience				

Exhibit C-8 ARKANSAS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
11-9021	Construction managers	7,682	8,406	8,875	1,193	16%	Bachelor's degree			
15-1099	Computer specialists, all other	760	826	873	113	15%	Associate's degree			
17-1012	Landscape architects	351	383	403	52	15%	Bachelor's degree			
49-9042	Maintenance and repair workers, general	12,727	13,778	14,692	1,965	15%	Moderate-term on-the-job training			
49-9097	Signal and track switch repairers	325	359	374	49	15%	Moderate-term on-the-job training			
33-3051	Police and sheriff's patrol officers	5,370	5,828	6,143	773	14%	Long-term on- the-job training			
47-4051	Highway maintenance workers	1,496	1,619	1,708	212	14%	Moderate-term on-the-job training			
11-9041	Engineering managers	706	757	797	91	13%	Degree plus work experience			
17-1022	Surveyors	435	476	491	56	13%	Bachelor's degree			
17-3011	Architectural and civil drafters	602	662	682	80	13%	Postsecondary vocational award			
17-3029	Engineering technicians, except drafters, all other	297	319	334	37	12%	Associate's degree			
53-6041	Traffic technicians	33	35	37	4	12%	Short-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	1,022	1,082	1,094	72	7%	Work experience in a related field			
17-2072	Electronics engineers, except computer	542	569	581	39	7%	Bachelor's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	168	175	180	12	7%	Postsecondary vocational award			

Exhibit C-8									
ARKANSAS- Fore	ARKANSAS- Forecasted Renewal Systems - Expanded Occupations Summary								
2010, 2015, and 2020									
					0/0				

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-1021	General and operations managers	14,774	15,499	15,698	924	6%	Degree plus work experience
17-3023	Electrical and electronic engineering technicians	978	996	1,003	25	3%	Associate's degree
17-2071	Electrical engineers	649	656	665	16	2%	Bachelor's degree
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training

Exhibit C-9 CALIFORNIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	47,319	57,356	66,887	19,568	41%	Bachelor's degree
13-1051	Cost estimators	23,597	27,368	29,375	5,778	24%	Work experience in a related field
13-1061	Emergency management specialists	1,383	1,591	1,721	338	24%	Work experience in a related field
15-2031	Operations research analysts	7,066	8,063	8,772	1,706	24%	Master's degree
43-5031	Dispatchers	6,235	7,076	7,661	1,426	23%	Moderate-term on-the-job training
11-3021	Computer and information systems managers	41,556	45,708	49,286	7,730	19%	Degree plus work experience

Exhibit C-9
CALIFORNIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

)10, 2015, an	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-2051	Civil engineers	44,399	50,005	52,894	8,495	19%	Bachelor's degree
49-9097	Signal and track switch repairers	4,214	4,744	4,954	740	18%	Moderate-term on-the-job training
11-9021	Construction managers	65,721	74,299	76,585	10,864	17%	Bachelor's degree
15-1011	Computer and information scientists, research	10,945	12,041	12,826	1,881	17%	Doctoral degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	87,874	99,498	102,458	14,584	17%	Work experience in a related field
47-4011	Construction and building inspectors	14,508	16,201	17,012	2,504	17%	Work experience in a related field
11-1011	Chief executives	155,408	172,218	179,691	24,283	16%	Degree plus work experience
15-1099	Computer specialists, all other	37,194	40,508	43,119	5,925	16%	Associate's degree
17-3022	Civil engineering technicians	7,939	8,791	9,149	1,210	15%	Associate's degree
29-9011	Occupational health and safety specialists	4,406	4,824	5,075	669	15%	Bachelor's degree
11-3011	Administrative services managers	27,655	30,065	31,634	3,979	14%	Degree plus work experience
33-3051	Police and sheriff's patrol officers	71,880	77,786	81,049	9,169	13%	Long-term on- the-job training
47-4051	Highway maintenance workers	4,263	4,622	4,797	534	13%	Moderate-term on-the-job training
49-9042	Maintenance and repair workers, general	129,449	140,175	146,725	17,276	13%	Moderate-term on-the-job training
47-2111	Electricians	59,380	65,102	65,858	6,478	11%	Long-term on- the-job training
17-1022	Surveyors	5,920	6,456	6,516	596	10%	Bachelor's degree

Exhibit C-9
CALIFORNIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

			110, 2013, ali	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level
53-6041	Traffic technicians	832	892	915	83	10%	Short-term on- the-job training
17-1012	Landscape architects	9,247	9,905	10,060	813	9%	Bachelor's degree
17-3011	Architectural and civil drafters	16,135	17,394	17,140	1,005	6%	Postsecondary vocational award
17-3029	Engineering technicians, except drafters, all other	10,835	11,153	11,475	640	6%	Associate's degree
11-9041	Engineering managers	32,251	32,897	33,950	1,699	5%	Degree plus work experience
49-2093	Electrical and electronics installers and repairers, transportation equipment	1,169	1,200	1,222	53	5%	Postsecondary vocational award
11-1021	General and operations managers	247,285	256,290	255,414	8,129	3%	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	12,003	12,244	12,096	93	1%	Work experience in a related field
17-2071	Electrical engineers	17,785	17,575	17,680	(105)	(1%)	Bachelor's degree
17-2072	Electronics engineers, except computer	28,015	27,201	27,343	(672)	(2%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	19,020	18,408	18,291	(729)	(4%)	Associate's degree
43-2099	Communications equipment operators, all other	305	296	277	(28)	(9%)	Short-term on- the-job training

Exhibit C-10 COLORADO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

			710, 2015, ali	u 2020		0.4	
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	7,567	8,792	9,821	2,254	30%	Bachelor's degree
13-1061	Emergency management specialists	265	311	338	73	28%	Work experience in a related field
11-1011	Chief executives	23,705	27,498	29,297	5,592	24%	Degree plus work experience
43-5031	Dispatchers	1,482	1,669	1,785	303	20%	Moderate-term on-the-job training
17-2051	Civil engineers	9,006	10,139	10,673	1,667	19%	Bachelor's degree
49-9097	Signal and track switch repairers	633	714	749	116	18%	Moderate-term on-the-job training
47-4011	Construction and building inspectors	2,860	3,208	3,353	493	17%	Work experience in a related field
15-1011	Computer and information scientists, research	1,449	1,592	1,675	226	16%	Doctoral degree
17-3022	Civil engineering technicians	1,523	1,680	1,737	214	14%	Associate's degree
33-3051	Police and sheriff's patrol officers	9,740	10,597	10,969	1,229	13%	Long-term on- the-job training
15-2031	Operations research analysts	1,111	1,192	1,244	133	12%	Master's degree
17-1012	Landscape architects	1,632	1,787	1,831	199	12%	Bachelor's degree
29-9011	Occupational health and safety specialists	964	1,045	1,076	112	12%	Bachelor's degree
47-4051	Highway maintenance workers	2,764	3,002	3,091	327	12%	Moderate-term on-the-job training
15-1099	Computer specialists, all other	7,928	8,478	8,784	856	11%	Associate's degree
53-6041	Traffic technicians	88	96	98	10	11%	Short-term on- the-job training

Exhibit C-10 COLORADO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		2	710, 2015, an	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3011	Administrative services managers	2,016	2,164	2,220	204	10%	Degree plus work experience
11-9021	Construction managers	14,752	16,313	16,256	1,504	10%	Bachelor's degree
49-9042	Maintenance and repair workers, general	23,103	24,684	25,193	2,090	9%	Moderate-term on-the-job training
13-1051	Cost estimators	4,893	5,252	5,213	320	7%	Work experience in a related field
17-1022	Surveyors	1,448	1,556	1,549	101	7%	Bachelor's degree
17-3029	Engineering technicians, except drafters, all other	1,207	1,265	1,297	90	7%	Associate's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	22,379	24,440	23,854	1,475	7%	Work experience in a related field
11-3021	Computer and information systems managers	5,035	5,247	5,332	297	6%	Degree plus work experience
11-9041	Engineering managers	3,166	3,252	3,268	102	3%	Degree plus work experience
47-2111	Electricians	14,392	15,120	14,631	239	2%	Long-term on- the-job training
49-2093	Electrical and electronics installers and repairers, transportation equipment	203	207	207	4	2%	Postsecondary vocational award
11-3071	Transportation, storage, and distribution managers	1,343	1,375	1,342	(1)	0%	Work experience in a related field
17-3011	Architectural and civil drafters	2,548	2,648	2,548	0	0%	Postsecondary vocational award

	Exhibit C-10 COLORADO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-2071	Electrical engineers	3,732	3,746	3,698	(34)	(1%)	Bachelor's degree					
11-1021	General and operations managers	44,423	45,122	43,619	(804)	(2%)	Degree plus work experience					
17-2072	Electronics engineers, except computer	5,052	4,939	4,964	(88)	(2%)	Bachelor's degree					
17-3023	Electrical and electronic engineering technicians	2,623	2,517	2,443	(180)	(7%)	Associate's degree					
43-2099	Communications equipment operators, all other	29	28	26	(3)	(10%)	Short-term on- the-job training					

	Exhibit C-11 CONNECTICUT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	4,704	5,547	6,282	1,578	34%	Bachelor's degree					
49-9097	Signal and track switch repairers	380	440	468	88	23%	Moderate-term on-the-job training					
13-1051	Cost estimators	2,519	2,821	3,056	537	21%	Work experience in a related field					
11-9021	Construction managers	10,522	11,993	12,628	2,106	20%	Bachelor's degree					

Exhibit C-11 CONNECTICUT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
47-1011	First-line supervisors/managers of construction trades and extraction workers	11,963	13,540	14,270	2,307	19%	Work experience in a related field				
11-1011	Chief executives	17,585	19,841	20,803	3,218	18%	Degree plus work experience				
15-1011	Computer and information scientists, research	760	845	882	122	16%	Doctoral degree				
13-1061	Emergency management specialists	263	289	303	40	15%	Work experience in a related field				
47-2111	Electricians	8,285	9,078	9,520	1,235	15%	Long-term on- the-job training				
15-2031	Operations research analysts	727	789	832	105	14%	Master's degree				
17-2051	Civil engineers	3,647	3,978	4,107	460	13%	Bachelor's degree				
11-3021	Computer and information systems managers	7,228	7,721	8,064	836	12%	Degree plus work experience				
17-1012	Landscape architects	894	981	997	103	12%	Bachelor's degree				
47-4011	Construction and building inspectors	1,215	1,328	1,362	147	12%	Work experience in a related field				
49-9042	Maintenance and repair workers, general	11,664	12,372	12,936	1,272	11%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	1,686	1,806	1,863	177	10%	Associate's degree				
17-1022	Surveyors	666	715	716	50	8%	Bachelor's degree				
29-9011	Occupational health and safety specialists	615	645	665	50	8%	Bachelor's degree				
17-3022	Civil engineering technicians	592	627	633	41	7%	Associate's degree				
11-3011	Administrative services managers	4,132	4,307	4,391	259	6%	Degree plus work experience				

Exhibit C-11 CONNECTICUT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
17-3011	Architectural and civil drafters	856	909	891	35	4%	Postsecondary vocational award		
43-5031	Dispatchers	1,359	1,409	1,413	54	4%	Moderate-term on-the-job training		
49-2093	Electrical and electronics installers and repairers, transportation equipment	134	136	137	3	2%	Postsecondary vocational award		
17-3029	Engineering technicians, except drafters, all other	553	553	555	2	0%	Associate's degree		
53-6041	Traffic technicians	45	46	45	0	0%	Short-term on- the-job training		
11-1021	General and operations managers	30,997	31,100	30,557	(440)	(1%)	Degree plus work experience		
11-9041	Engineering managers	4,054	4,014	4,027	(27)	(1%)	Degree plus work experience		
33-3051	Police and sheriff's patrol officers	7,388	7,474	7,330	(58)	(1%)	Long-term on- the-job training		
47-4051	Highway maintenance workers	2,578	2,610	2,561	(17)	(1%)	Moderate-term on-the-job training		
17-2072	Electronics engineers, except computer	1,252	1,226	1,226	(26)	(2%)	Bachelor's degree		
11-3071	Transportation, storage, and distribution managers	1,390	1,384	1,347	(43)	(3%)	Work experience in a related field		
17-2071	Electrical engineers	1,909	1,859	1,850	(59)	(3%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	2,015	1,924	1,890	(125)	(6%)	Associate's degree		

Exhibit C-11 CONNECTICUT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
43-2099	Communications equipment operators, all other	28	27	24	(4)	(14%)	Short-term on- the-job training		

	Exhibit C-12 DELAWARE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,031	1,261	1,465	434	42%	Bachelor's degree				
11-1011	Chief executives	2,935	3,406	3,637	702	24%	Degree plus work experience				
13-1051	Cost estimators	694	801	852	158	23%	Work experience in a related field				
11-9021	Construction managers	2,181	2,550	2,652	471	22%	Bachelor's degree				
47-1011	First-line supervisors/managers of construction trades and extraction workers	3,097	3,575	3,697	600	19%	Work experience in a related field				
17-1012	Landscape architects	207	235	245	38	18%	Bachelor's degree				
15-1011	Computer and information scientists, research	183	202	214	31	17%	Doctoral degree				
47-2111	Electricians	2,060	2,330	2,403	343	17%	Long-term on- the-job training				
49-9097	Signal and track switch repairers	92	104	108	16	17%	Moderate-term on-the-job training				

Exhibit C-12
DELAWARE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
13-1061	Emergency management specialists	76	84	88	12	16%	Work experience in a related field	
15-1099	Computer specialists, all other	409	442	466	57	14%	Associate's degree	
17-2051	Civil engineers	1,049	1,156	1,192	143	14%	Bachelor's degree	
47-4011	Construction and building inspectors	416	461	476	60	14%	Work experience in a related field	
11-3021	Computer and information systems managers	1,534	1,638	1,722	188	12%	Degree plus work experience	
15-2031	Operations research analysts	204	219	225	21	10%	Master's degree	
17-3022	Civil engineering technicians	338	365	368	30	9%	Associate's degree	
49-9042	Maintenance and repair workers, general	3,868	4,119	4,225	357	9%	Moderate-term on-the-job training	
11-3011	Administrative services managers	812	857	876	64	8%	Degree plus work experience	
43-5031	Dispatchers	208	222	225	17	8%	Moderate-term on-the-job training	
29-9011	Occupational health and safety specialists	262	276	280	18	7%	Bachelor's degree	
17-1022	Surveyors	175	187	185	10	6%	Bachelor's degree	
17-2072	Electronics engineers, except computer	246	255	259	13	5%	Bachelor's degree	
47-4051	Highway maintenance workers	104	108	107	3	3%	Moderate-term on-the-job training	
33-3051	Police and sheriff's patrol officers	1,587	1,641	1,618	31	2%	Long-term on- the-job training	
17-3011	Architectural and civil drafters	431	452	436	5	1%	Postsecondary vocational award	

Exhibit C-12
DELAWARE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-1021	General and operations managers	4,853	4,956	4,865	12	0%	Degree plus work experience
17-3023	Electrical and electronic engineering technicians	412	417	411	(1)	0%	Associate's degree
11-9041	Engineering managers	387	389	385	(2)	(1%)	Degree plus work experience
49-2093	Electrical and electronics installers and repairers, transportation equipment	46	46	45	(1)	(2%)	Postsecondary vocational award
17-3029	Engineering technicians, except drafters, all other	116	115	113	(3)	(3%)	Associate's degree
17-2071	Electrical engineers	656	653	633	(23)	(4%)	Bachelor's degree
11-3071	Transportation, storage, and distribution managers	420	413	400	(20)	(5%)	Work experience in a related field
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training

Exhibit C-13
DISTRICT OF COLUMBIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1081	Network systems and data communications analysts	3,011	3,787	4,518	1,507	50%	Bachelor's degree			
13-1061	Emergency management specialists	112	130	142	30	27%	Work experience in a related field			
11-9021	Construction managers	969	1,119	1,181	212	22%	Bachelor's degree			
13-1051	Cost estimators	422	484	514	92	22%	Work experience in a related field			
17-1012	Landscape architects	330	378	403	73	22%	Bachelor's degree			
15-2031	Operations research analysts	1,631	1,806	1,948	317	19%	Master's degree			
15-1011	Computer and information scientists, research	1,432	1,561	1,672	240	17%	Doctoral degree			
11-3021	Computer and information systems managers	3,176	3,495	3,699	523	16%	Degree plus work experience			
11-1011	Chief executives	4,334	4,800	4,991	657	15%	Degree plus work experience			
17-3022	Civil engineering technicians	217	240	249	32	15%	Associate's degree			
47-1011	First-line supervisors/managers of construction trades and extraction workers	1,693	1,879	1,929	236	14%	Work experience in a related field			
17-2051	Civil engineers	1,510	1,636	1,711	201	13%	Bachelor's degree			
11-3011	Administrative services managers	1,988	2,135	2,232	244	12%	Degree plus work experience			
17-3011	Architectural and civil drafters	535	592	601	66	12%	Postsecondary vocational award			
47-4011	Construction and building inspectors	523	566	588	65	12%	Work experience in a related field			

Exhibit C-13
DISTRICT OF COLUMBIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
49-9042	Maintenance and repair workers, general	7,023	7,535	7,883	860	12%	Moderate-term on-the-job training		
43-5031	Dispatchers	193	208	215	22	11%	Moderate-term on-the-job training		
17-1022	Surveyors	184	198	201	17	9%	Bachelor's degree		
11-9041	Engineering managers	1,423	1,490	1,525	102	7%	Degree plus work experience		
15-1099	Computer specialists, all other	9,722	10,134	10,450	728	7%	Associate's degree		
29-9011	Occupational health and safety specialists	463	483	497	34	7%	Bachelor's degree		
49-9097	Signal and track switch repairers	46	48	49	3	7%	Moderate-term on-the-job training		
17-2071	Electrical engineers	1,155	1,203	1,230	75	6%	Bachelor's degree		
17-2072	Electronics engineers, except computer	1,769	1,826	1,875	106	6%	Bachelor's degree		
17-3029	Engineering technicians, except drafters, all other	647	669	687	40	6%	Associate's degree		
17-3023	Electrical and electronic engineering technicians	1,170	1,207	1,233	63	5%	Associate's degree		
47-2111	Electricians	1,646	1,738	1,731	85	5%	Long-term on- the-job training		
33-3051	Police and sheriff's patrol officers	3,406	3,516	3,541	135	4%	Long-term on- the-job training		
49-2093	Electrical and electronics installers and repairers, transportation equipment	49	50	51	2	4%	Postsecondary vocational award		
47-4051	Highway maintenance workers	102	106	105	3	3%	Moderate-term on-the-job training		

Exhibit C-13
DISTRICT OF COLUMBIA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-1021	General and operations managers	16,743	17,194	16,987	244	1%	Degree plus work experience
53-6041	Traffic technicians	11	11	11	0	0%	Short-term on- the-job training
11-3071	Transportation, storage, and distribution managers	510	501	486	(24)	(5%)	Work experience in a related field
43-2099	Communications equipment operators, all other	55	51	46	(9)	(16%)	Short-term on- the-job training

Exhibit C-14 FLORIDA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	24,362	30,346	35,199	10,837	44%	Bachelor's degree
49-9097	Signal and track switch repairers	2,357	2,826	3,024	667	28%	Moderate-term on-the-job training
13-1051	Cost estimators	12,839	15,187	16,105	3,266	25%	Work experience in a related field
13-1061	Emergency management specialists	676	782	843	167	25%	Work experience in a related field
15-2031	Operations research analysts	7,589	8,751	9,509	1,920	25%	Master's degree
11-1011	Chief executives	72,582	84,939	90,047	17,465	24%	Degree plus work experience

Exhibit C-14 FLORIDA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
15-1011	Computer and information scientists, research	2,921	3,331	3,554	633	22%	Doctoral degree	
11-3021	Computer and information systems managers	8,475	9,544	10,193	1,718	20%	Degree plus work experience	
43-5031	Dispatchers	6,239	7,033	7,449	1,210	19%	Moderate-term on-the-job training	
17-2051	Civil engineers	17,261	19,467	20,355	3,094	18%	Bachelor's degree	
47-4011	Construction and building inspectors	8,168	9,216	9,610	1,442	18%	Work experience in a related field	
17-1012	Landscape architects	3,702	4,136	4,280	578	16%	Bachelor's degree	
11-3011	Administrative services managers	9,210	10,141	10,592	1,382	15%	Degree plus work experience	
15-1099	Computer specialists, all other	6,743	7,397	7,724	981	15%	Associate's degree	
29-9011	Occupational health and safety specialists	1,810	1,988	2,078	268	15%	Bachelor's degree	
49-9042	Maintenance and repair workers, general	77,655	85,314	88,945	11,290	15%	Moderate-term on-the-job training	
17-3022	Civil engineering technicians	4,485	4,946	5,069	584	13%	Associate's degree	
11-9041	Engineering managers	4,619	4,951	5,120	501	11%	Degree plus work experience	
47-1011	First-line supervisors/managers of construction trades and extraction workers	62,326	69,593	69,277	6,951	11%	Work experience in a related field	
33-3051	Police and sheriff's patrol officers	34,857	37,645	38,353	3,496	10%	Long-term on- the-job training	
47-4051	Highway maintenance workers	2,900	3,143	3,196	296	10%	Moderate-term on-the-job training	

Exhibit C-14 FLORIDA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
11-9021	Construction managers	37,778	41,524	41,140	3,362	9%	Bachelor's degree		
17-1022	Surveyors	2,737	2,958	2,945	208	8%	Bachelor's degree		
11-1021	General and operations managers	64,534	68,931	69,146	4,612	7%	Degree plus work experience		
17-2071	Electrical engineers	7,261	7,543	7,661	400	6%	Bachelor's degree		
17-2072	Electronics engineers, except computer	4,869	5,060	5,184	315	6%	Bachelor's degree		
17-3029	Engineering technicians, except drafters, all other	2,678	2,791	2,840	162	6%	Associate's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	1,012	1,048	1,073	61	6%	Postsecondary vocational award		
53-6041	Traffic technicians	333	354	354	21	6%	Short-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	4,087	4,312	4,308	221	5%	Work experience in a related field		
17-3023	Electrical and electronic engineering technicians	9,089	9,208	9,235	146	2%	Associate's degree		
47-2111	Electricians	34,788	36,916	35,647	859	2%	Long-term on- the-job training		
17-3011	Architectural and civil drafters	8,671	9,002	8,576	(95)	(1%)	Postsecondary vocational award		
43-2099	Communications equipment operators, all other	352	333	302	(50)	(14%)	Short-term on- the-job training		

Exhibit C-15 GEORGIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	9,888	12,148	13,980	4,092	41%	Bachelor's degree
49-9097	Signal and track switch repairers	1,126	1,379	1,491	365	32%	Moderate-term on-the-job training
13-1051	Cost estimators	5,619	6,575	7,114	1,495	27%	Work experience in a related field
13-1061	Emergency management specialists	409	479	519	110	27%	Work experience in a related field
11-9021	Construction managers	25,282	29,768	31,286	6,004	24%	Bachelor's degree
15-1011	Computer and information scientists, research	1,786	2,042	2,187	401	22%	Doctoral degree
17-2051	Civil engineers	7,962	9,121	9,682	1,720	22%	Bachelor's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	31,373	36,486	38,199	6,826	22%	Work experience in a related field
11-1011	Chief executives	43,797	50,281	52,836	9,039	21%	Degree plus work experience
15-2031	Operations research analysts	2,301	2,584	2,788	487	21%	Master's degree
47-4011	Construction and building inspectors	3,516	4,035	4,262	746	21%	Work experience in a related field
11-3021	Computer and information systems managers	10,607	11,723	12,575	1,968	19%	Degree plus work experience
43-5031	Dispatchers	3,749	4,202	4,460	711	19%	Moderate-term on-the-job training
17-1012	Landscape architects	2,013	2,293	2,382	369	18%	Bachelor's degree
17-3022	Civil engineering technicians	1,454	1,629	1,700	246	17%	Associate's degree

Exhibit C-15 GEORGIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	1		710, 2015, an	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3011	Administrative services managers	10,684	11,648	12,176	1,492	14%	Degree plus work experience
15-1099	Computer specialists, all other	4,615	5,023	5,270	655	14%	Associate's degree
17-1022	Surveyors	1,432	1,585	1,601	169	12%	Bachelor's degree
47-2111	Electricians	18,434	20,242	20,598	2,164	12%	Long-term on- the-job training
11-9041	Engineering managers	4,655	4,985	5,153	498	11%	Degree plus work experience
29-9011	Occupational health and safety specialists	955	1,026	1,062	107	11%	Bachelor's degree
49-9042	Maintenance and repair workers, general	47,014	50,292	52,078	5,064	11%	Moderate-term on-the-job training
47-4051	Highway maintenance workers	2,412	2,604	2,665	253	10%	Moderate-term on-the-job training
33-3051	Police and sheriff's patrol officers	19,683	21,114	21,523	1,840	9%	Long-term on- the-job training
53-6041	Traffic technicians	282	303	307	25	9%	Short-term on- the-job training
17-2071	Electrical engineers	3,073	3,228	3,266	193	6%	Bachelor's degree
17-3029	Engineering technicians, except drafters, all other	1,029	1,076	1,094	65	6%	Associate's degree
17-2072	Electronics engineers, except computer	4,602	4,723	4,822	220	5%	Bachelor's degree
17-3011	Architectural and civil drafters	2,230	2,380	2,334	104	5%	Postsecondary vocational award
49-2093	Electrical and electronics installers and repairers, transportation equipment	488	506	508	20	4%	Postsecondary vocational award

Exhibit C-15
GEORGIA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	3,132	3,236	3,211	79	3%	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	3,665	3,756	3,788	123	3%	Associate's degree
11-1021	General and operations managers	78,752	81,268	80,363	1,611	2%	Degree plus work experience
43-2099	Communications equipment operators, all other	135	127	116	(19)	(14%)	Short-term on- the-job training

Exhibit C-16 HAWAII- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,692	2,036	2,320	628	37%	Bachelor's degree				
13-1051	Cost estimators	764	886	952	188	25%	Work experience in a related field				
49-9097	Signal and track switch repairers	149	172	182	33	22%	Moderate-term on-the-job training				
11-9021	Construction managers	2,742	3,121	3,266	524	19%	Bachelor's degree				

Exhibit C-16 HAWAII- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
47-1011	First-line supervisors/managers of construction trades and extraction workers	3,565	4,051	4,242	677	19%	Work experience in a related field		
15-1011	Computer and information scientists, research	214	240	253	39	18%	Doctoral degree		
15-2031	Operations research analysts	135	149	158	23	17%	Master's degree		
11-1011	Chief executives	5,389	5,996	6,266	877	16%	Degree plus work experience		
17-1012	Landscape architects	297	331	343	46	15%	Bachelor's degree		
13-1061	Emergency management specialists	94	103	107	13	14%	Work experience in a related field		
17-2051	Civil engineers	1,990	2,187	2,265	275	14%	Bachelor's degree		
47-4011	Construction and building inspectors	832	913	942	110	13%	Work experience in a related field		
11-3021	Computer and information systems managers	603	654	674	71	12%	Degree plus work experience		
47-2111	Electricians	3,125	3,423	3,492	367	12%	Long-term on- the-job training		
11-9041	Engineering managers	566	614	631	65	11%	Degree plus work experience		
17-1022	Surveyors	265	287	289	24	9%	Bachelor's degree		
17-3022	Civil engineering technicians	144	155	157	13	9%	Associate's degree		
49-9042	Maintenance and repair workers, general	6,796	7,166	7,316	520	8%	Moderate-term on-the-job training		
15-1099	Computer specialists, all other	1,247	1,306	1,332	85	7%	Associate's degree		
17-2071	Electrical engineers	629	668	672	43	7%	Bachelor's degree		

Exhibit C-16 HAWAII- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
29-9011	Occupational health and safety specialists	338	355	360	22	7%	Bachelor's degree			
11-3011	Administrative services managers	1,086	1,141	1,147	61	6%	Degree plus work experience			
17-3011	Architectural and civil drafters	748	800	790	42	6%	Postsecondary vocational award			
17-3029	Engineering technicians, except drafters, all other	541	564	573	32	6%	Associate's degree			
17-2072	Electronics engineers, except computer	500	518	527	27	5%	Bachelor's degree			
43-5031	Dispatchers	255	266	264	9	4%	Moderate-term on-the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	69	72	72	3	4%	Postsecondary vocational award			
33-3051	Police and sheriff's patrol officers	2,860	2,961	2,939	79	3%	Long-term on- the-job training			
47-4051	Highway maintenance workers	332	346	343	11	3%	Moderate-term on-the-job training			
17-3023	Electrical and electronic engineering technicians	523	538	535	12	2%	Associate's degree			
53-6041	Traffic technicians	41	42	42	1	2%	Short-term on- the-job training			
11-1021	General and operations managers	10,221	10,311	9,942	(279)	(3%)	Degree plus work experience			
11-3071	Transportation, storage, and distribution managers	475	465	435	(40)	(8%)	Work experience in a related field			
43-2099	Communications equipment operators, all other	24	22	19	(5)	(21%)	Short-term on- the-job training			

Exhibit C-17
IDAHO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1081	Network systems and data communications analysts	1,690	2,199	2,577	887	52%	Bachelor's degree			
15-2031	Operations research analysts	315	377	427	112	36%	Master's degree			
13-1051	Cost estimators	976	1,194	1,316	340	35%	Work experience in a related field			
47-2111	Electricians	3,974	4,748	5,101	1,127	28%	Long-term on- the-job training			
47-1011	First-line supervisors/managers of construction trades and extraction workers	6,421	7,689	8,144	1,723	27%	Work experience in a related field			
11-9021	Construction managers	4,904	5,853	6,161	1,257	26%	Bachelor's degree			
13-1061	Emergency management specialists	126	145	156	30	24%	Work experience in a related field			
17-2051	Civil engineers	1,039	1,203	1,293	254	24%	Bachelor's degree			
15-1099	Computer specialists, all other	1,246	1,411	1,531	285	23%	Associate's degree			
11-1011	Chief executives	7,041	8,102	8,594	1,553	22%	Degree plus work experience			
11-3021	Computer and information systems managers	1,030	1,163	1,258	228	22%	Degree plus work experience			
15-1011	Computer and information scientists, research	260	294	314	54	21%	Doctoral degree			
47-4011	Construction and building inspectors	597	685	724	127	21%	Work experience in a related field			
11-3011	Administrative services managers	2,342	2,647	2,816	474	20%	Degree plus work experience			
43-5031	Dispatchers	434	490	517	83	19%	Moderate-term on-the-job training			

Exhibit C-17 IDAHO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		20	710, 2013, am	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-3022	Civil engineering technicians	523	588	615	92	18%	Associate's degree
49-9042	Maintenance and repair workers, general	6,075	6,777	7,176	1,101	18%	Moderate-term on-the-job training
49-9097	Signal and track switch repairers	191	216	225	34	18%	Moderate-term on-the-job training
29-9011	Occupational health and safety specialists	352	388	411	59	17%	Bachelor's degree
17-1012	Landscape architects	262	292	304	42	16%	Bachelor's degree
17-1022	Surveyors	405	456	468	63	16%	Bachelor's degree
17-3011	Architectural and civil drafters	478	537	551	73	15%	Postsecondary vocational award
53-6041	Traffic technicians	15	17	17	2	13%	Short-term on- the-job training
33-3051	Police and sheriff's patrol officers	2,613	2,829	2,879	266	10%	Long-term on- the-job training
47-4051	Highway maintenance workers	1,125	1,218	1,240	115	10%	Moderate-term on-the-job training
11-1021	General and operations managers	13,524	14,530	14,661	1,137	8%	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	691	725	728	37	5%	Work experience in a related field
17-3029	Engineering technicians, except drafters, all other	855	894	900	45	5%	Associate's degree
11-9041	Engineering managers	1,050	1,080	1,088	38	4%	Degree plus work experience
17-2072	Electronics engineers, except computer	225	228	225	0	0%	Bachelor's degree

Exhibit C-17
IDAHO- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
49-2093	Electrical and electronics installers and repairers, transportation equipment	50	49	48	(2)	(4%)	Postsecondary vocational award
17-2071	Electrical engineers	1,531	1,460	1,386	(145)	(9%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	1,082	1,031	970	(112)	(10%)	Associate's degree
43-2099	Communications equipment operators, all other	<10	<10	<10		1	Short-term on- the-job training

Exhibit C-18 ILLINOIS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	11,376	13,738	16,014	4,638	41%	Bachelor's degree
15-2031	Operations research analysts	1,968	2,251	2,496	528	27%	Master's degree
17-2051	Civil engineers	8,177	9,362	10,237	2,060	25%	Bachelor's degree
13-1051	Cost estimators	8,507	9,616	10,503	1,996	23%	Work experience in a related field
11-3021	Computer and information systems managers	15,230	16,865	18,400	3,170	21%	Degree plus work experience
13-1061	Emergency management specialists	518	581	624	106	20%	Work experience in a related field

Exhibit C-18
ILLINOIS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
17-3022	Civil engineering technicians	1,778	1,986	2,123	345	19%	Associate's degree			
15-1011	Computer and information scientists, research	2,274	2,506	2,673	399	18%	Doctoral degree			
17-1022	Surveyors	1,574	1,760	1,864	290	18%	Bachelor's degree			
47-4011	Construction and building inspectors	3,358	3,738	3,952	594	18%	Work experience in a related field			
11-9021	Construction managers	22,821	25,677	26,615	3,794	17%	Bachelor's degree			
47-1011	First-line supervisors/managers of construction trades and extraction workers	28,083	31,442	32,684	4,601	16%	Work experience in a related field			
11-1011	Chief executives	53,645	59,310	61,822	8,177	15%	Degree plus work experience			
43-5031	Dispatchers	3,771	4,107	4,346	575	15%	Moderate-term on-the-job training			
49-9097	Signal and track switch repairers	1,673	1,831	1,901	228	14%	Moderate-term on-the-job training			
11-3011	Administrative services managers	14,142	15,207	16,003	1,861	13%	Degree plus work experience			
15-1099	Computer specialists, all other	15,944	17,177	17,942	1,998	13%	Associate's degree			
17-1012	Landscape architects	1,792	1,952	2,013	221	12%	Bachelor's degree			
29-9011	Occupational health and safety specialists	1,178	1,258	1,321	143	12%	Bachelor's degree			
47-2111	Electricians	28,266	30,278	31,434	3,168	11%	Long-term on- the-job training			
49-9042	Maintenance and repair workers, general	54,648	57,951	60,820	6,172	11%	Moderate-term on-the-job training			

Exhibit C-18
ILLINOIS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		20	110, 2015, all	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-3011	Architectural and civil drafters	2,637	2,841	2,883	246	9%	Postsecondary vocational award
11-9041	Engineering managers	6,784	6,922	7,249	465	7%	Degree plus work experience
53-6041	Traffic technicians	100	104	106	6	6%	Short-term on- the-job training
17-3029	Engineering technicians, except drafters, all other	2,688	2,739	2,834	146	5%	Associate's degree
33-3051	Police and sheriff's patrol officers	31,013	32,150	32,566	1,553	5%	Long-term on- the-job training
47-4051	Highway maintenance workers	6,600	6,846	6,927	327	5%	Moderate-term on-the-job training
11-1021	General and operations managers	67,017	68,650	68,697	1,680	3%	Degree plus work experience
17-2071	Electrical engineers	4,710	4,671	4,832	122	3%	Bachelor's degree
17-2072	Electronics engineers, except computer	4,094	4,048	4,155	61	1%	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	4,207	4,099	4,164	(43)	(1%)	Associate's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	732	731	726	(6)	(1%)	Postsecondary vocational award
11-3071	Transportation, storage, and distribution managers	4,900	4,910	4,805	(95)	(2%)	Work experience in a related field
43-2099	Communications equipment operators, all other	156	150	140	(16)	(10%)	Short-term on- the-job training

Exhibit C-19
INDIANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010- 2020)	% Change (2010- 2020)	Education Level		
15-1081	Network systems and data communications analysts	5,421	6,491	7,438	2,017	37%	Bachelor's degree		
13-1051	Cost estimators	4,894	5,469	5,971	1,077	22%	Work experience in a related field		
17-2051	Civil engineers	3,710	4,160	4,455	745	20%	Bachelor's degree		
17-1022	Surveyors	930	1,042	1,097	167	18%	Bachelor's degree		
15-1011	Computer and information scientists, research	699	768	808	109	16%	Doctoral degree		
15-2031	Operations research analysts	1,001	1,092	1,164	163	16%	Master's degree		
47-4011	Construction and building inspectors	1,652	1,817	1,914	262	16%	Work experience in a related field		
13-1061	Emergency management specialists	301	328	346	45	15%	Work experience in a related field		
43-5031	Dispatchers	1,949	2,113	2,244	295	15%	Moderate-term on-the-job training		
11-1011	Chief executives	20,165	22,021	22,925	2,760	14%	Degree plus work experience		
17-3022	Civil engineering technicians	730	795	830	100	14%	Associate's degree		
47-1011	First-line supervisors/managers of construction trades and extraction workers	17,917	19,524	20,386	2,469	14%	Work experience in a related field		
11-9021	Construction managers	13,882	15,095	15,660	1,778	13%	Bachelor's degree		
17-1012	Landscape architects	822	892	921	99	12%	Bachelor's degree		
11-3021	Computer and information systems managers	4,189	4,461	4,669	480	11%	Degree plus work experience		

Exhibit C-19
INDIANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1099	Computer specialists, all other	2,597	2,753	2,848	251	10%	Associate's degree			
49-9097	Signal and track switch repairers	918	982	1,014	96	10%	Moderate-term on-the-job training			
11-3011	Administrative services managers	3,369	3,548	3,660	291	9%	Degree plus work experience			
17-3011	Architectural and civil drafters	1,742	1,873	1,905	163	9%	Postsecondary vocational award			
47-2111	Electricians	14,688	15,370	15,852	1,164	8%	Long-term on- the-job training			
49-9042	Maintenance and repair workers, general	36,771	37,884	39,246	2,475	7%	Moderate-term on-the-job training			
29-9011	Occupational health and safety specialists	1,094	1,130	1,157	63	6%	Bachelor's degree			
33-3051	Police and sheriff's patrol officers	10,881	11,290	11,508	627	6%	Long-term on- the-job training			
53-6041	Traffic technicians	66	69	69	3	5%	Short-term on- the-job training			
47-4051	Highway maintenance workers	4,745	4,871	4,939	194	4%	Moderate-term on-the-job training			
17-3029	Engineering technicians, except drafters, all other	1,326	1,339	1,365	39	3%	Associate's degree			
49-2093	Electrical and electronics installers and repairers, transportation equipment	201	204	207	6	3%	Postsecondary vocational award			
11-9041	Engineering managers	3,396	3,374	3,420	24	1%	Degree plus work experience			
17-2072	Electronics engineers, except computer	2,284	2,269	2,295	11	0%	Bachelor's degree			
11-1021	General and operations managers	25,363	25,491	25,177	(186)	(1%)	Degree plus work experience			

Exhibit C-19
INDIANA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	2,205	2,218	2,177	(28)	(1%)	Work experience in a related field
17-2071	Electrical engineers	2,668	2,607	2,616	(52)	(2%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	3,269	3,191	3,173	(96)	(3%)	Associate's degree
43-2099	Communications equipment operators, all other	49	46	42	(7)	(14%)	Short-term on- the-job training

Exhibit C-20 IOWA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
11-1011	Chief executives	10,812	11,918	12,437	1,625	15%	Degree plus work experience		
11-1021	General and operations managers	12,060	12,379	12,352	292	2%	Degree plus work experience		
11-3011	Administrative services managers	2,989	3,198	3,322	333	11%	Degree plus work experience		
11-3021	Computer and information systems managers	2,419	2,671	2,852	433	18%	Degree plus work experience		
11-3071	Transportation, storage, and distribution managers	1,074	1,092	1,071	(3)	0%	Work experience in a related field		

Exhibit C-20 IOWA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		20)10, 2015, an	d 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-9021	Construction managers	7,866	8,636	9,102	1,236	16%	Bachelor's degree
11-9041	Engineering managers	1,192	1,222	1,236	44	4%	Degree plus work experience
13-1051	Cost estimators	2,268	2,610	2,921	653	29%	Work experience in a related field
13-1061	Emergency management specialists	197	216	231	34	17%	Work experience in a related field
15-1011	Computer and information scientists, research	305	342	363	58	19%	Doctoral degree
15-1081	Network systems and data communications analysts	2,307	2,827	3,263	956	41%	Bachelor's degree
15-1099	Computer specialists, all other	1,541	1,673	1,753	212	14%	Associate's degree
15-2031	Operations research analysts	842	946	1,022	180	21%	Master's degree
17-1012	Landscape architects	332	364	382	50	15%	Bachelor's degree
17-1022	Surveyors	369	420	452	83	22%	Bachelor's degree
17-2051	Civil engineers	1,892	2,142	2,331	439	23%	Bachelor's degree
17-2071	Electrical engineers	1,395	1,418	1,418	23	2%	Bachelor's degree
17-2072	Electronics engineers, except computer	451	463	469	18	4%	Bachelor's degree
17-3011	Architectural and civil drafters	724	799	836	112	15%	Postsecondary vocational award
17-3022	Civil engineering technicians	853	937	995	142	17%	Associate's degree
17-3023	Electrical and electronic engineering technicians	1,483	1,492	1,483	0	0%	Associate's degree

Exhibit C-20 IOWA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		_	710, 2015, un		C	%	
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	Change (2010-2020)	Education Level
17-3029	Engineering technicians, except drafters, all other	362	380	395	33	9%	Associate's degree
29-9011	Occupational health and safety specialists	496	527	546	50	10%	Bachelor's degree
33-3051	Police and sheriff's patrol officers	4,681	4,856	4,925	244	5%	Long-term on- the-job training
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training
43-5031	Dispatchers	898	966	1,015	117	13%	Moderate-term on-the-job training
47-1011	First-line supervisors/managers of construction trades and extraction workers	9,541	10,578	11,273	1,732	18%	Work experience in a related field
47-2111	Electricians	7,799	8,581	9,208	1,409	18%	Long-term on- the-job training
47-4011	Construction and building inspectors	844	928	979	135	16%	Work experience in a related field
47-4051	Highway maintenance workers	3,784	3,923	3,986	202	5%	Moderate-term on-the-job training
49-2093	Electrical and electronics installers and repairers, transportation equipment	84	85	86	2	2%	Postsecondary vocational award
49-9042	Maintenance and repair workers, general	14,588	15,462	16,191	1,603	11%	Moderate-term on-the-job training
49-9097	Signal and track switch repairers	382	409	422	40	10%	Moderate-term on-the-job training
53-6041	Traffic technicians	43	44	45	2	5%	Short-term on- the-job training

Exhibit C-21 KANSAS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		20	010, 2015, an	d 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	2,970	3,450	3,807	837	28%	Bachelor's degree
13-1051	Cost estimators	2,023	2,262	2,459	436	22%	Work experience in a related field
15-2031	Operations research analysts	429	476	502	73	17%	Master's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	11,932	13,177	13,985	2,053	17%	Work experience in a related field
11-9021	Construction managers	6,580	7,248	7,654	1,074	16%	Bachelor's degree
13-1061	Emergency management specialists	229	251	266	37	16%	Work experience in a related field
17-3029	Engineering technicians, except drafters, all other	390	425	451	61	16%	Associate's degree
43-5031	Dispatchers	1,462	1,592	1,679	217	15%	Moderate-term on-the-job training
49-9097	Signal and track switch repairers	342	375	392	50	15%	Moderate-term on-the-job training
29-9011	Occupational health and safety specialists	702	757	790	88	13%	Bachelor's degree
47-2111	Electricians	6,721	7,194	7,535	814	12%	Long-term on- the-job training
49-9042	Maintenance and repair workers, general	13,074	14,041	14,694	1,620	12%	Moderate-term on-the-job training
11-1011	Chief executives	16,148	17,455	17,987	1,839	11%	Degree plus work experience
15-1011	Computer and information scientists, research	408	437	453	45	11%	Doctoral degree

Exhibit C-21 KANSAS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		<u> </u>)10, 2015, an	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1099	Computer specialists, all other	1,396	1,492	1,549	153	11%	Associate's degree
47-4011	Construction and building inspectors	912	983	1,010	98	11%	Work experience in a related field
49-2093	Electrical and electronics installers and repairers, transportation equipment	115	120	128	13	11%	Postsecondary vocational award
11-3011	Administrative services managers	1,741	1,854	1,904	163	9%	Degree plus work experience
11-3021	Computer and information systems managers	2,369	2,516	2,583	214	9%	Degree plus work experience
11-9041	Engineering managers	1,736	1,847	1,899	163	9%	Degree plus work experience
17-2051	Civil engineers	2,516	2,694	2,749	233	9%	Bachelor's degree
17-1012	Landscape architects	381	405	412	31	8%	Bachelor's degree
17-3022	Civil engineering technicians	1,435	1,507	1,514	79	6%	Associate's degree
47-4051	Highway maintenance workers	1,605	1,681	1,707	102	6%	Moderate-term on-the-job training
33-3051	Police and sheriff's patrol officers	6,174	6,421	6,471	297	5%	Long-term on- the-job training
17-2071	Electrical engineers	1,633	1,689	1,696	63	4%	Bachelor's degree
53-6041	Traffic technicians	50	52	52	2	4%	Short-term on- the-job training
11-1021	General and operations managers	21,782	22,301	22,050	268	1%	Degree plus work experience
17-1022	Surveyors	505	521	509	4	1%	Bachelor's degree

	KANSAS- Foreca		Exhibit Coral Systems - 010, 2015, an	Expanded O	ecupation	s Summar	у
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	914	924	913	(1)	0%	Work experience in a related field
17-2072	Electronics engineers, except computer	1,563	1,588	1,570	7	0%	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	1,346	1,361	1,345	(1)	0%	Associate's degree
17-3011	Architectural and civil drafters	989	1,008	963	(26)	(3%)	Postsecondary vocational award
43-2099	Communications equipment operators, all other	21	19	17	(4)	(19%)	Short-term on- the-job training

Exhibit C-22 KENTUCKY- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	3,830	4,653	5,369	1,539	40%	Bachelor's degree
13-1051	Cost estimators	2,190	2,478	2,669	479	22%	Work experience in a related field
13-1061	Emergency management specialists	196	219	235	39	20%	Work experience in a related field
15-2031	Operations research analysts	386	432	463	77	20%	Master's degree

Exhibit C-22 KENTUCKY- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		20	010, 2015, an	d 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-2051	Civil engineers	2,685	2,984	3,188	503	19%	Bachelor's degree
47-4011	Construction and building inspectors	1,104	1,230	1,303	199	18%	Work experience in a related field
49-9097	Signal and track switch repairers	428	479	503	75	18%	Moderate-term on-the-job training
11-9021	Construction managers	10,295	11,598	12,044	1,749	17%	Bachelor's degree
17-1022	Surveyors	592	655	691	99	17%	Bachelor's degree
43-5031	Dispatchers	1,555	1,708	1,816	261	17%	Moderate-term on-the-job training
47-1011	First-line supervisors/managers of construction trades and extraction workers	13,172	14,777	15,392	2,220	17%	Work experience in a related field
17-3022	Civil engineering technicians	1,135	1,247	1,322	187	16%	Associate's degree
11-3021	Computer and information systems managers	2,750	3,003	3,162	412	15%	Degree plus work experience
15-1011	Computer and information scientists, research	390	426	447	57	15%	Doctoral degree
17-1012	Landscape architects	571	626	654	83	15%	Bachelor's degree
11-1011	Chief executives	15,269	16,779	17,418	2,149	14%	Degree plus work experience
11-3011	Administrative services managers	2,188	2,343	2,422	234	11%	Degree plus work experience
17-3011	Architectural and civil drafters	985	1,055	1,084	99	10%	Postsecondary vocational award
47-4051	Highway maintenance workers	2,337	2,487	2,561	224	10%	Moderate-term on-the-job training

Exhibit C-22 KENTUCKY- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		<u> </u>)10, 2015, an	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1099	Computer specialists, all other	1,819	1,924	1,974	155	9%	Associate's degree
29-9011	Occupational health and safety specialists	1,063	1,124	1,163	100	9%	Bachelor's degree
49-9042	Maintenance and repair workers, general	19,537	20,536	21,281	1,744	9%	Moderate-term on-the-job training
33-3051	Police and sheriff's patrol officers	6,333	6,670	6,828	495	8%	Long-term on- the-job training
53-6041	Traffic technicians	67	70	71	4	6%	Short-term on- the-job training
11-9041	Engineering managers	1,663	1,683	1,708	45	3%	Degree plus work experience
47-2111	Electricians	10,294	10,605	10,574	280	3%	Long-term on- the-job training
17-2072	Electronics engineers, except computer	728	737	740	12	2%	Bachelor's degree
17-2071	Electrical engineers	1,205	1,210	1,221	16	1%	Bachelor's degree
11-1021	General and operations managers	22,601	22,908	22,523	(78)	0%	Degree plus work experience
17-3029	Engineering technicians, except drafters, all other	990	982	980	(10)	(1%)	Associate's degree
11-3071	Transportation, storage, and distribution managers	1,655	1,659	1,608	(47)	(3%)	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	970	956	944	(26)	(3%)	Associate's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	217	213	206	(11)	(5%)	Postsecondary vocational award

	KENTUCKY- Fore		Exhibit C- ewal Systems 010, 2015, an	- Expanded	Occupatio	ons Summ	ary
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
43-2099	Communications equipment operators, all other	37	34	31	(6)	(16%)	Short-term on- the-job training

	LOUISIANA- Fore		Exhibit Coewal Systems 1010, 2015, an	- Expanded	Occupatio	ons Summ	ary
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	2,116	2,510	2,864	748	35%	Bachelor's degree
13-1051	Cost estimators	2,621	3,036	3,400	779	30%	Work experience in a related field
17-2051	Civil engineers	4,332	5,027	5,605	1,273	29%	Bachelor's degree
15-2031	Operations research analysts	202	233	258	56	28%	Master's degree
13-1061	Emergency management specialists	198	227	250	52	26%	Work experience in a related field
49-9097	Signal and track switch repairers	499	586	625	126	25%	Moderate-term on-the-job training
11-1011	Chief executives	14,408	16,652	17,831	3,423	24%	Degree plus work experience
11-9021	Construction managers	11,875	13,747	14,738	2,863	24%	Bachelor's degree
17-3022	Civil engineering technicians	1,660	1,893	2,062	402	24%	Associate's degree
47-4011	Construction and building inspectors	1,591	1,818	1,976	385	24%	Work experience in a related field

Exhibit C-23 LOUISIANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

		20)10, 2015, an	u 2020			
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3021	Computer and information systems managers	1,627	1,828	2,000	373	23%	Degree plus work experience
17-1022	Surveyors	1,262	1,430	1,538	276	22%	Bachelor's degree
17-3011	Architectural and civil drafters	1,333	1,520	1,630	297	22%	Postsecondary vocational award
15-1011	Computer and information scientists, research	523	588	633	110	21%	Doctoral degree
17-1012	Landscape architects	873	987	1,056	183	21%	Bachelor's degree
43-5031	Dispatchers	1,579	1,770	1,906	327	21%	Moderate-term on-the-job training
11-3011	Administrative services managers	3,056	3,375	3,622	566	19%	Degree plus work experience
47-1011	First-line supervisors/managers of construction trades and extraction workers	19,287	21,641	23,010	3,723	19%	Work experience in a related field
49-9042	Maintenance and repair workers, general	29,678	32,427	34,802	5,124	17%	Moderate-term on-the-job training
17-2071	Electrical engineers	1,365	1,497	1,579	214	16%	Bachelor's degree
33-3051	Police and sheriff's patrol officers	10,540	11,518	12,198	1,658	16%	Long-term on- the-job training
11-9041	Engineering managers	1,849	2,004	2,129	280	15%	Degree plus work experience
47-4051	Highway maintenance workers	1,355	1,485	1,565	210	15%	Moderate-term on-the-job training
53-6041	Traffic technicians	86	94	97	11	13%	Short-term on- the-job training
17-2072	Electronics engineers, except computer	547	587	611	64	12%	Bachelor's degree

Exhibit C-23
LOUISIANA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
47-2111	Electricians	12,535	13,446	14,067	1,532	12%	Long-term on- the-job training
15-1099	Computer specialists, all other	1,972	2,086	2,175	203	10%	Associate's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	495	525	545	50	10%	Postsecondary vocational award
29-9011	Occupational health and safety specialists	833	867	890	57	7%	Bachelor's degree
11-1021	General and operations managers	35,838	37,473	38,161	2,323	6%	Degree plus work experience
17-3029	Engineering technicians, except drafters, all other	1,803	1,854	1,888	85	5%	Associate's degree
17-3023	Electrical and electronic engineering technicians	2,173	2,244	2,266	93	4%	Associate's degree
11-3071	Transportation, storage, and distribution managers	1,523	1,574	1,574	51	3%	Work experience in a related field
43-2099	Communications equipment operators, all other	48	47	44	(4)	(8%)	Short-term on- the-job training

Exhibit C-24
MAINE- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	1,197	1,411	1,590	393	33%	Bachelor's degree

Exhibit C-24
MAINE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
49-9097	Signal and track switch repairers	173	196	207	34	20%	Moderate-term on-the-job training					
11-9021	Construction managers	5,162	5,870	6,082	920	18%	Bachelor's degree					
13-1051	Cost estimators	743	829	877	134	18%	Work experience in a related field					
47-1011	First-line supervisors/managers of construction trades and extraction workers	6,243	6,989	7,221	978	16%	Work experience in a related field					
11-1011	Chief executives	5,158	5,698	5,934	776	15%	Degree plus work experience					
15-1011	Computer and information scientists, research	170	187	196	26	15%	Doctoral degree					
17-1012	Landscape architects	290	322	334	44	15%	Bachelor's degree					
13-1061	Emergency management specialists	86	94	98	12	14%	Work experience in a related field					
15-2031	Operations research analysts	221	239	249	28	13%	Master's degree					
17-2051	Civil engineers	1,031	1,120	1,152	121	12%	Bachelor's degree					
11-3021	Computer and information systems managers	950	1,012	1,041	91	10%	Degree plus work experience					
47-4011	Construction and building inspectors	539	580	589	50	9%	Work experience in a related field					
15-1099	Computer specialists, all other	554	585	600	46	8%	Associate's degree					
17-3011	Architectural and civil drafters	622	662	658	36	6%	Postsecondary vocational award					
43-5031	Dispatchers	725	758	764	39	5%	Moderate-term on-the-job training					

Exhibit C-24
MAINE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-3011	Administrative services managers	1,107	1,151	1,156	49	4%	Degree plus work experience					
17-1022	Surveyors	335	353	350	15	4%	Bachelor's degree					
17-3022	Civil engineering technicians	427	446	445	18	4%	Associate's degree					
49-9042	Maintenance and repair workers, general	5,203	5,375	5,435	232	4%	Moderate-term on-the-job training					
47-2111	Electricians	3,771	3,923	3,897	126	3%	Long-term on- the-job training					
29-9011	Occupational health and safety specialists	317	325	324	7	2%	Bachelor's degree					
17-3029	Engineering technicians, except drafters, all other	660	665	665	5	1%	Associate's degree					
11-9041	Engineering managers	605	600	593	(12)	(2%)	Degree plus work experience					
47-4051	Highway maintenance workers	1,654	1,661	1,614	(40)	(2%)	Moderate-term on-the-job training					
49-2093	Electrical and electronics installers and repairers, transportation equipment	117	116	115	(2)	(2%)	Postsecondary vocational award					
33-3051	Police and sheriff's patrol officers	2,045	2,048	1,985	(60)	(3%)	Long-term on- the-job training					
11-1021	General and operations managers	9,389	9,302	8,935	(454)	(5%)	Degree plus work experience					
17-2072	Electronics engineers, except computer	319	310	304	(15)	(5%)	Bachelor's degree					
11-3071	Transportation, storage, and distribution managers	621	610	582	(39)	(6%)	Work experience in a related field					
17-2071	Electrical engineers	430	413	397	(33)	(8%)	Bachelor's degree					

	Exhibit C-24 MAINE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	422	395	377	(45)	(11%)	Associate's degree				
43-2099	Communications equipment operators, all other	45	42	37	(8)	(18%)	Short-term on- the-job training				
53-6041	Traffic technicians	<10	<10	<10			Short-term on-				

	Exhibit C-25 MARYLAND- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	12,321	15,553	18,545	6,224	51%	Bachelor's degree					
13-1051	Cost estimators	4,848	5,861	6,619	1,771	37%	Work experience in a related field					
11-9021	Construction managers	14,938	17,754	19,151	4,213	28%	Bachelor's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	20,770	24,535	26,509	5,739	28%	Work experience in a related field					
17-2051	Civil engineers	7,705	8,900	9,767	2,062	27%	Bachelor's degree					
15-2031	Operations research analysts	2,680	3,075	3,381	701	26%	Master's degree					
13-1061	Emergency management specialists	311	359	389	78	25%	Work experience in a related field					

Exhibit C-25 MARYLAND- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
47-4011	Construction and building inspectors	3,330	3,831	4,146	816	25%	Work experience in a related field					
49-9097	Signal and track switch repairers	629	734	784	155	25%	Moderate-term on-the-job training					
11-1011	Chief executives	23,104	26,706	28,399	5,295	23%	Degree plus work experience					
17-3022	Civil engineering technicians	2,147	2,442	2,623	476	22%	Associate's degree					
15-1011	Computer and information scientists, research	2,762	3,097	3,355	593	21%	Doctoral degree					
11-3021	Computer and information systems managers	8,557	9,536	10,244	1,687	20%	Degree plus work experience					
17-1012	Landscape architects	1,288	1,448	1,535	247	19%	Bachelor's degree					
17-1022	Surveyors	1,202	1,348	1,418	216	18%	Bachelor's degree					
47-2111	Electricians	16,814	18,646	19,616	2,802	17%	Long-term on- the-job training					
49-9042	Maintenance and repair workers, general	23,766	25,977	27,477	3,711	16%	Moderate-term on-the-job training					
11-3011	Administrative services managers	7,276	7,947	8,347	1,071	15%	Degree plus work experience					
43-5031	Dispatchers	1,552	1,703	1,786	234	15%	Moderate-term on-the-job training					
11-9041	Engineering managers	4,661	5,043	5,318	657	14%	Degree plus work experience					
17-3011	Architectural and civil drafters	1,654	1,823	1,884	230	14%	Postsecondary vocational award					
29-9011	Occupational health and safety specialists	1,001	1,084	1,142	141	14%	Bachelor's degree					
15-1099	Computer specialists, all other	11,436	12,245	12,827	1,391	12%	Associate's degree					

Exhibit C-25 MARYLAND- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-3029	Engineering technicians, except drafters, all other	3,069	3,268	3,417	348	11%	Associate's degree					
17-2072	Electronics engineers, except computer	3,890	4,109	4,274	384	10%	Bachelor's degree					
53-6041	Traffic technicians	122	130	133	11	9%	Short-term on- the-job training					
17-2071	Electrical engineers	4,141	4,361	4,477	336	8%	Bachelor's degree					
33-3051	Police and sheriff's patrol officers	15,075	15,969	16,221	1,146	8%	Long-term on- the-job training					
47-4051	Highway maintenance workers	1,923	2,046	2,081	158	8%	Moderate-term on-the-job training					
11-1021	General and operations managers	56,458	58,924	59,118	2,660	5%	Degree plus work experience					
49-2093	Electrical and electronics installers and repairers, transportation equipment	201	205	209	8	4%	Postsecondary vocational award					
17-3023	Electrical and electronic engineering technicians	4,280	4,342	4,384	104	2%	Associate's degree					
11-3071	Transportation, storage, and distribution managers	1,817	1,840	1,807	(10)	(1%)	Work experience in a related field					
43-2099	Communications equipment operators, all other	111	106	98	(13)	(12%)	Short-term on- the-job training					

Exhibit C-26 MASSACHUSETTS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1081	Network systems and data communications analysts	8,801	10,431	12,088	3,287	37%	Bachelor's degree			
13-1061	Emergency management specialists	380	426	453	73	19%	Work experience in a related field			
15-1011	Computer and information scientists, research	2,737	3,025	3,246	509	19%	Doctoral degree			
15-2031	Operations research analysts	2,275	2,512	2,710	435	19%	Master's degree			
49-9097	Signal and track switch repairers	646	727	763	117	18%	Moderate-term on-the-job training			
17-2051	Civil engineers	9,125	9,967	10,575	1,450	16%	Bachelor's degree			
13-1051	Cost estimators	4,672	5,128	5,355	683	15%	Work experience in a related field			
11-3021	Computer and information systems managers	12,894	13,818	14,708	1,814	14%	Degree plus work experience			
11-9021	Construction managers	16,164	18,079	18,504	2,340	14%	Bachelor's degree			
17-1012	Landscape architects	2,071	2,258	2,360	289	14%	Bachelor's degree			
47-4011	Construction and building inspectors	2,995	3,257	3,393	398	13%	Work experience in a related field			
17-3022	Civil engineering technicians	767	825	860	93	12%	Associate's degree			
15-1099	Computer specialists, all other	5,828	6,197	6,480	652	11%	Associate's degree			
29-9011	Occupational health and safety specialists	1,174	1,253	1,307	133	11%	Bachelor's degree			
47-1011	First-line supervisors/managers of construction trades and extraction workers	19,012	20,916	21,174	2,162	11%	Work experience in a related field			

Exhibit C-26 MASSACHUSETTS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-1011	Chief executives	37,849	40,583	41,528	3,679	10%	Degree plus work experience					
17-1022	Surveyors	1,458	1,536	1,574	116	8%	Bachelor's degree					
17-3011	Architectural and civil drafters	2,549	2,700	2,759	210	8%	Postsecondary vocational award					
49-9042	Maintenance and repair workers, general	23,634	24,801	25,514	1,880	8%	Moderate-term on-the-job training					
11-3011	Administrative services managers	8,463	8,829	9,042	579	7%	Degree plus work experience					
17-3029	Engineering technicians, except drafters, all other	953	978	1,001	48	5%	Associate's degree					
43-5031	Dispatchers	2,836	2,941	2,957	121	4%	Moderate-term on-the-job training					
11-9041	Engineering managers	5,980	5,987	6,111	131	2%	Degree plus work experience					
47-2111	Electricians	13,784	14,342	13,933	149	1%	Long-term on- the-job training					
33-3051	Police and sheriff's patrol officers	16,244	16,384	16,091	(153)	(1%)	Long-term on- the-job training					
47-4051	Highway maintenance workers	2,927	2,945	2,883	(44)	(2%)	Moderate-term on-the-job training					
53-6041	Traffic technicians	146	147	143	(3)	(2%)	Short-term on- the-job training					
11-1021	General and operations managers	44,426	44,272	43,311	(1,115)	(3%)	Degree plus work experience					
11-3071	Transportation, storage, and distribution managers	1,557	1,534	1,491	(66)	(4%)	Work experience in a related field					
17-2071	Electrical engineers	7,631	7,372	7,288	(343)	(4%)	Bachelor's degree					

	Exhibit C-26 MASSACHUSETTS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-2072	Electronics engineers, except computer	4,406	4,210	4,173	(233)	(5%)	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	545	527	510	(35)	(6%)	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	8,054	7,567	7,373	(681)	(8%)	Associate's degree				
43-2099	Communications equipment operators, all other	38	36	34	(4)	(11%)	Short-term on- the-job training				

Exhibit C-27 MICHIGAN- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
15-1081	Network systems and data communications analysts	8,872	10,415	11,874	3,002	34%	Bachelor's degree	
13-1051	Cost estimators	6,168	6,826	7,605	1,437	23%	Work experience in a related field	
49-9097	Signal and track switch repairers	993	1,143	1,218	225	23%	Moderate-term on-the-job training	
17-2051	Civil engineers	7,065	7,803	8,648	1,583	22%	Bachelor's degree	
17-3011	Architectural and civil drafters	1,837	1,993	2,172	335	18%	Postsecondary vocational award	

Exhibit C-27 MICHIGAN- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
17-1012	Landscape architects	1,748	1,922	2,039	291	17%	Bachelor's degree	
17-1022	Surveyors	1,153	1,240	1,352	199	17%	Bachelor's degree	
17-3022	Civil engineering technicians	2,401	2,585	2,818	417	17%	Associate's degree	
13-1061	Emergency management specialists	445	485	514	69	16%	Work experience in a related field	
47-2111	Electricians	20,159	21,736	23,465	3,306	16%	Long-term on- the-job training	
15-1011	Computer and information scientists, research	1,201	1,320	1,387	186	15%	Doctoral degree	
47-4011	Construction and building inspectors	3,021	3,262	3,460	439	15%	Work experience in a related field	
11-1011	Chief executives	37,815	41,541	43,230	5,415	14%	Degree plus work experience	
11-9021	Construction managers	19,640	21,506	22,323	2,683	14%	Bachelor's degree	
15-2031	Operations research analysts	2,482	2,650	2,825	343	14%	Master's degree	
47-1011	First-line supervisors/managers of construction trades and extraction workers	24,207	26,392	27,663	3,456	14%	Work experience in a related field	
11-3021	Computer and information systems managers	7,281	7,666	8,079	798	11%	Degree plus work experience	
15-1099	Computer specialists, all other	8,945	9,357	9,757	812	9%	Associate's degree	
11-3011	Administrative services managers	6,792	7,077	7,335	543	8%	Degree plus work experience	
49-9042	Maintenance and repair workers, general	36,980	38,282	39,929	2,949	8%	Moderate-term on-the-job training	

Exhibit C-27 MICHIGAN- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
11-9041	Engineering managers	8,565	8,692	9,201	636	7%	Degree plus work experience	
29-9011	Occupational health and safety specialists	1,127	1,162	1,201	74	7%	Bachelor's degree	
43-5031	Dispatchers	2,256	2,340	2,406	150	7%	Moderate-term on-the-job training	
17-2071	Electrical engineers	4,996	5,060	5,276	280	6%	Bachelor's degree	
17-3029	Engineering technicians, except drafters, all other	3,986	3,989	4,189	203	5%	Associate's degree	
17-2072	Electronics engineers, except computer	2,730	2,759	2,818	88	3%	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	4,426	4,435	4,545	119	3%	Associate's degree	
49-2093	Electrical and electronics installers and repairers, transportation equipment	88	87	90	2	2%	Postsecondary vocational award	
47-4051	Highway maintenance workers	3,321	3,350	3,341	20	1%	Moderate-term on-the-job training	
53-6041	Traffic technicians	109	110	110	1	1%	Short-term on- the-job training	
11-1021	General and operations managers	38,466	38,588	38,479	13	0%	Degree plus work experience	
11-3071	Transportation, storage, and distribution managers	2,674	2,651	2,612	(62)	(2%)	Work experience in a related field	
33-3051	Police and sheriff's patrol officers	15,659	15,487	15,335	(324)	(2%)	Long-term on- the-job training	
43-2099	Communications equipment operators, all other	27	25	23	(4)	(15%)	Short-term on- the-job training	

Exhibit C-28 MINNESOTA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	7,660	9,138	10,537	2,877	38%	Bachelor's degree				
17-2051	Civil engineers	4,032	4,570	4,961	929	23%	Bachelor's degree				
13-1051	Cost estimators	4,165	4,675	5,038	873	21%	Work experience in a related field				
17-1022	Surveyors	826	930	992	166	20%	Bachelor's degree				
13-1061	Emergency management specialists	201	226	240	39	19%	Work experience in a related field				
15-2031	Operations research analysts	1,411	1,558	1,669	258	18%	Master's degree				
11-1011	Chief executives	21,257	23,688	24,776	3,519	17%	Degree plus work experience				
11-9021	Construction managers	12,086	13,569	14,122	2,036	17%	Bachelor's degree				
47-1011	First-line supervisors/managers of construction trades and extraction workers	16,855	18,849	19,650	2,795	17%	Work experience in a related field				
15-1011	Computer and information scientists, research	963	1,060	1,121	158	16%	Doctoral degree				
17-1012	Landscape architects	901	995	1,044	143	16%	Bachelor's degree				
17-3022	Civil engineering technicians	2,798	3,061	3,232	434	16%	Associate's degree				
49-9097	Signal and track switch repairers	634	701	738	104	16%	Moderate-term on-the-job training				
47-4011	Construction and building inspectors	2,068	2,273	2,384	316	15%	Work experience in a related field				

Exhibit C-28
MINNESOTA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-3021	Computer and information systems managers	9,566	10,243	10,790	1,224	13%	Degree plus work experience					
15-1099	Computer specialists, all other	8,976	9,622	10,071	1,095	12%	Associate's degree					
17-3011	Architectural and civil drafters	2,003	2,159	2,218	215	11%	Postsecondary vocational award					
49-9042	Maintenance and repair workers, general	19,116	20,361	21,172	2,056	11%	Moderate-term on-the-job training					
11-3011	Administrative services managers	5,809	6,176	6,373	564	10%	Degree plus work experience					
43-5031	Dispatchers	1,508	1,612	1,664	156	10%	Moderate-term on-the-job training					
29-9011	Occupational health and safety specialists	1,252	1,322	1,358	106	8%	Bachelor's degree					
47-2111	Electricians	11,774	12,492	12,714	940	8%	Long-term on- the-job training					
17-3029	Engineering technicians, except drafters, all other	1,304	1,316	1,337	33	3%	Associate's degree					
53-6041	Traffic technicians	75	77	77	2	3%	Short-term on- the-job training					
11-9041	Engineering managers	4,311	4,339	4,393	82	2%	Degree plus work experience					
33-3051	Police and sheriff's patrol officers	8,245	8,456	8,419	174	2%	Long-term on- the-job training					
47-4051	Highway maintenance workers	4,768	4,891	4,871	103	2%	Moderate-term on-the-job training					
11-1021	General and operations managers	31,648	32,071	31,627	(21)	0%	Degree plus work experience					
49-2093	Electrical and electronics installers and repairers, transportation equipment	135	133	134	(1)	(1%)	Postsecondary vocational award					

Exhibit C-28
MINNESOTA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	1,967	1,964	1,924	(43)	(2%)	Work experience in a related field
17-2071	Electrical engineers	3,905	3,870	3,839	(66)	(2%)	Bachelor's degree
17-2072	Electronics engineers, except computer	2,228	2,182	2,177	(51)	(2%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	3,020	2,895	2,825	(195)	(6%)	Associate's degree
43-2099	Communications equipment operators, all other	39	37	35	(4)	(10%)	Short-term on- the-job training

Exhibit C-29 MISSISSIPPI- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	1,009	1,229	1,409	400	40%	Bachelor's degree					
13-1051	Cost estimators	1,370	1,616	1,806	436	32%	Work experience in a related field					
15-2031	Operations research analysts	142	163	180	38	27%	Master's degree					
15-1011	Computer and information scientists, research	496	570	626	130	26%	Doctoral degree					
17-2051	Civil engineers	2,117	2,451	2,673	556	26%	Bachelor's degree					
11-9021	Construction managers	7,688	9,013	9,558	1,870	24%	Bachelor's degree					

Exhibit C-29 MISSISSIPPI- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-1022	Surveyors	812	931	998	186	23%	Bachelor's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	11,367	13,125	13,999	2,632	23%	Work experience in a related field					
11-3021	Computer and information systems managers	1,107	1,238	1,339	232	21%	Degree plus work experience					
13-1061	Emergency management specialists	321	359	387	66	21%	Work experience in a related field					
47-2111	Electricians	6,793	7,709	8,253	1,460	21%	Long-term on- the-job training					
17-3011	Architectural and civil drafters	655	738	783	128	20%	Postsecondary vocational award					
49-9097	Signal and track switch repairers	347	397	415	68	20%	Moderate-term on-the-job training					
11-1011	Chief executives	9,595	10,850	11,455	1,860	19%	Degree plus work experience					
47-4011	Construction and building inspectors	732	822	871	139	19%	Work experience in a related field					
17-1012	Landscape architects	350	397	413	63	18%	Bachelor's degree					
17-3022	Civil engineering technicians	1,053	1,169	1,240	187	18%	Associate's degree					
15-1099	Computer specialists, all other	741	812	859	118	16%	Associate's degree					
43-5031	Dispatchers	1,181	1,293	1,364	183	15%	Moderate-term on-the-job training					
49-9042	Maintenance and repair workers, general	14,135	15,301	16,317	2,182	15%	Moderate-term on-the-job training					
11-3011	Administrative services managers	1,735	1,882	1,983	248	14%	Degree plus work experience					

Exhibit C-29 MISSISSIPPI- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
17-2072	Electronics engineers, except computer	343	367	386	43	13%	Bachelor's degree			
11-9041	Engineering managers	1,016	1,090	1,141	125	12%	Degree plus work experience			
17-2071	Electrical engineers	994	1,065	1,117	123	12%	Bachelor's degree			
29-9011	Occupational health and safety specialists	378	402	417	39	10%	Bachelor's degree			
17-3023	Electrical and electronic engineering technicians	1,144	1,204	1,245	101	9%	Associate's degree			
17-3029	Engineering technicians, except drafters, all other	634	667	687	53	8%	Associate's degree			
33-3051	Police and sheriff's patrol officers	7,429	7,840	8,024	595	8%	Long-term on- the-job training			
47-4051	Highway maintenance workers	2,365	2,500	2,559	194	8%	Moderate-term on-the-job training			
49-2093	Electrical and electronics installers and repairers, transportation equipment	179	186	191	12	7%	Postsecondary vocational award			
11-1021	General and operations managers	15,594	16,299	16,551	957	6%	Degree plus work experience			
53-6041	Traffic technicians	47	49	50	3	6%	Short-term on- the-job training			
11-3071	Transportation, storage, and distribution managers	905	939	940	35	4%	Work experience in a related field			
43-2099	Communications equipment operators, all other	12	12	11	(1)	(8%)	Short-term on- the-job training			

Exhibit C-30 MISSOURI- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	5,856	6,842	7,743	1,887	32%	Bachelor's degree					
49-9097	Signal and track switch repairers	675	777	837	162	24%	Moderate-term on-the-job training					
13-1051	Cost estimators	4,499	5,102	5,399	900	20%	Work experience in a related field					
47-2111	Electricians	13,178	14,902	15,589	2,411	18%	Long-term on- the-job training					
49-2093	Electrical and electronics installers and repairers, transportation equipment	282	308	334	52	18%	Postsecondary vocational award					
11-9021	Construction managers	13,545	15,508	15,908	2,363	17%	Bachelor's degree					
15-2031	Operations research analysts	882	964	1,036	154	17%	Master's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	17,029	19,402	19,922	2,893	17%	Work experience in a related field					
15-1011	Computer and information scientists, research	784	862	909	125	16%	Doctoral degree					
13-1061	Emergency management specialists	384	418	438	54	14%	Work experience in a related field					
11-1011	Chief executives	23,975	26,195	27,065	3,090	13%	Degree plus work experience					
17-1012	Landscape architects	833	911	940	107	13%	Bachelor's degree					
17-2051	Civil engineers	5,575	6,013	6,268	693	12%	Bachelor's degree					
11-3021	Computer and information systems managers	5,275	5,620	5,872	597	11%	Degree plus work experience					

Exhibit C-30 MISSOURI- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
43-5031	Dispatchers	2,483	2,641	2,722	239	10%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	1,871	1,960	2,012	141	8%	Associate's degree				
47-4011	Construction and building inspectors	2,474	2,612	2,652	178	7%	Work experience in a related field				
11-3011	Administrative services managers	4,056	4,213	4,286	230	6%	Degree plus work experience				
15-1099	Computer specialists, all other	4,896	5,079	5,170	274	6%	Associate's degree				
49-9042	Maintenance and repair workers, general	29,316	30,469	31,104	1,788	6%	Moderate-term on-the-job training				
11-9041	Engineering managers	2,565	2,632	2,679	114	4%	Degree plus work experience				
17-3011	Architectural and civil drafters	2,204	2,300	2,283	79	4%	Postsecondary vocational award				
17-1022	Surveyors	1,001	1,030	1,030	29	3%	Bachelor's degree				
29-9011	Occupational health and safety specialists	1,106	1,134	1,137	31	3%	Bachelor's degree				
17-2071	Electrical engineers	2,455	2,501	2,514	59	2%	Bachelor's degree				
17-3029	Engineering technicians, except drafters, all other	620	630	634	14	2%	Associate's degree				
47-4051	Highway maintenance workers	6,105	6,255	6,210	105	2%	Moderate-term on-the-job training				
17-2072	Electronics engineers, except computer	2,677	2,674	2,697	20	1%	Bachelor's degree				
33-3051	Police and sheriff's patrol officers	11,607	11,778	11,665	58	0%	Long-term on- the-job training				
53-6041	Traffic technicians	82	83	82	0	0%	Short-term on- the-job training				

17-3023

43-2099

Electrical and

technicians
Communications

all other

electronic engineering

equipment operators,

1,830

48

Exhibit C-30 MISSOURI- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
11-3071	Transportation, storage, and distribution managers	1,892	1,895	1,859	(33)	(2%)	Work experience in a related field			
11-1021	General and operations managers	36,489	36,387	35,309	(1,180)	(3%)	Degree plus work experience			

1,780

42

(50)

(6)

(3%)

(13%)

1,801

46

Associate's

Short-term on-

the-job training

degree

	Exhibit C-31 MONTANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	863	1,018	1,151	288	33%	Bachelor's degree				
13-1051	Cost estimators	974	1,118	1,187	213	22%	Work experience in a related field				
15-2031	Operations research analysts	142	160	170	28	20%	Master's degree				
11-1011	Chief executives	4,802	5,354	5,597	795	17%	Degree plus work experience				
11-9021	Construction managers	3,571	4,032	4,193	622	17%	Bachelor's degree				

Exhibit C-31 MONTANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
47-1011	First-line supervisors/managers of construction trades and extraction workers	4,815	5,411	5,588	773	16%	Work experience in a related field				
11-3021	Computer and information systems managers	415	457	479	64	15%	Degree plus work experience				
13-1061	Emergency management specialists	104	115	120	16	15%	Work experience in a related field				
17-2051	Civil engineers	1,278	1,415	1,464	186	15%	Bachelor's degree				
47-4011	Construction and building inspectors	331	367	381	50	15%	Work experience in a related field				
49-9042	Maintenance and repair workers, general	4,811	5,290	5,545	734	15%	Moderate-term on-the-job training				
15-1011	Computer and information scientists, research	143	155	163	20	14%	Doctoral degree				
43-5031	Dispatchers	555	609	631	76	14%	Moderate-term on-the-job training				
49-9097	Signal and track switch repairers	155	170	175	20	13%	Moderate-term on-the-job training				
11-3011	Administrative services managers	376	408	421	45	12%	Degree plus work experience				
17-1012	Landscape architects	179	195	201	22	12%	Bachelor's degree				
11-9041	Engineering managers	290	314	321	31	11%	Degree plus work experience				
17-3022	Civil engineering technicians	508	554	564	56	11%	Associate's degree				
17-2071	Electrical engineers	380	408	419	39	10%	Bachelor's degree				

Exhibit C-31 MONTANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
17-2072	Electronics engineers, except computer	133	141	146	13	10%	Bachelor's degree	
17-1022	Surveyors	547	599	597	50	9%	Bachelor's degree	
47-2111	Electricians	2,733	2,947	2,976	243	9%	Long-term on- the-job training	
15-1099	Computer specialists, all other	611	645	659	48	8%	Associate's degree	
53-6041	Traffic technicians	13	14	14	1	8%	Short-term on- the-job training	
17-3029	Engineering technicians, except drafters, all other	189	199	202	13	7%	Associate's degree	
47-4051	Highway maintenance workers	387	410	413	26	7%	Moderate-term on-the-job training	
17-3023	Electrical and electronic engineering technicians	367	385	390	23	6%	Associate's degree	
29-9011	Occupational health and safety specialists	278	294	296	18	6%	Bachelor's degree	
17-3011	Architectural and civil drafters	554	596	581	27	5%	Postsecondary vocational award	
33-3051	Police and sheriff's patrol officers	1,747	1,841	1,841	94	5%	Long-term on- the-job training	
49-2093	Electrical and electronics installers and repairers, transportation equipment	59	61	62	3	5%	Postsecondary vocational award	
11-1021	General and operations managers	6,616	6,903	6,816	200	3%	Degree plus work experience	
11-3071	Transportation, storage, and distribution managers	245	245	240	(5)	(2%)	Work experience in a related field	

	Exhibit C-31 MONTANA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training			

	Exhibit C-32 NEBRASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	2,433	3,020	3,548	1,115	46%	Bachelor's degree				
13-1051	Cost estimators	1,707	2,011	2,299	592	35%	Work experience in a related field				
17-2051	Civil engineers	1,827	2,135	2,351	524	29%	Bachelor's degree				
15-2031	Operations research analysts	390	450	496	106	27%	Master's degree				
47-2111	Electricians	5,660	6,400	7,059	1,399	25%	Long-term on- the-job training				
15-1099	Computer specialists, all other	833	938	1,014	181	22%	Associate's degree				
29-9011	Occupational health and safety specialists	410	461	500	90	22%	Bachelor's degree				
11-3021	Computer and information systems managers	1,406	1,584	1,701	295	21%	Degree plus work experience				
47-1011	First-line supervisors/managers of construction trades and extraction workers	6,461	7,225	7,808	1,347	21%	Work experience in a related field				
11-9021	Construction managers	5,097	5,672	6,094	997	20%	Bachelor's degree				

Exhibit C-32 NEBRASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
13-1061	Emergency management specialists	212	237	255	43	20%	Work experience in a related field		
17-1022	Surveyors	256	292	307	51	20%	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	288	321	345	57	20%	Postsecondary vocational award		
17-1012	Landscape architects	237	264	281	44	19%	Bachelor's degree		
17-3022	Civil engineering technicians	1,001	1,122	1,191	190	19%	Associate's degree		
47-4011	Construction and building inspectors	626	702	747	121	19%	Work experience in a related field		
11-3011	Administrative services managers	1,187	1,314	1,397	210	18%	Degree plus work experience		
11-9041	Engineering managers	482	531	568	86	18%	Degree plus work experience		
17-3029	Engineering technicians, except drafters, all other	156	171	184	28	18%	Associate's degree		
11-1011	Chief executives	6,623	7,403	7,777	1,154	17%	Degree plus work experience		
15-1011	Computer and information scientists, research	239	263	280	41	17%	Doctoral degree		
49-9097	Signal and track switch repairers	364	404	426	62	17%	Moderate-term on-the-job training		
43-5031	Dispatchers	693	755	794	101	15%	Moderate-term on-the-job training		
49-9042	Maintenance and repair workers, general	8,411	9,147	9,697	1,286	15%	Moderate-term on-the-job training		

Exhibit C-32 NEBRASKA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-2072	Electronics engineers, except computer	354	374	399	45	13%	Bachelor's degree
17-3011	Architectural and civil drafters	523	574	592	69	13%	Postsecondary vocational award
17-2071	Electrical engineers	465	496	519	54	12%	Bachelor's degree
53-6041	Traffic technicians	11	12	12	1	9%	Short-term on- the-job training
11-1021	General and operations managers	8,436	8,920	9,074	638	8%	Degree plus work experience
33-3051	Police and sheriff's patrol officers	3,475	3,643	3,704	229	7%	Long-term on- the-job training
11-3071	Transportation, storage, and distribution managers	740	778	777	37	5%	Work experience in a related field
47-4051	Highway maintenance workers	2,675	2,787	2,822	147	5%	Moderate-term on-the-job training
17-3023	Electrical and electronic engineering technicians	418	420	425	7	2%	Associate's degree
43-2099	Communications equipment operators, all other	36	35	33	(3)	(8%)	Short-term on- the-job training

Exhibit C-33
NEVADA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
13-1051	Cost estimators	1,781	2,385	2,636	855	48%	Work experience in a related field

Exhibit C-33 NEVADA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
15-1081	Network systems and data communications analysts	2,106	2,620	2,964	858	41%	Bachelor's degree		
47-1011	First-line supervisors/managers of construction trades and extraction workers	9,118	11,732	12,459	3,341	37%	Work experience in a related field		
11-9021	Construction managers	4,906	6,266	6,614	1,708	35%	Bachelor's degree		
49-9097	Signal and track switch repairers	243	296	321	78	32%	Moderate-term on-the-job training		
11-1011	Chief executives	10,161	12,383	13,356	3,195	31%	Degree plus work experience		
15-2031	Operations research analysts	111	133	145	34	31%	Master's degree		
13-1061	Emergency management specialists	145	174	188	43	30%	Work experience in a related field		
17-2051	Civil engineers	2,994	3,634	3,873	879	29%	Bachelor's degree		
43-5031	Dispatchers	593	703	761	168	28%	Moderate-term on-the-job training		
47-4011	Construction and building inspectors	1,580	1,892	2,003	423	27%	Work experience in a related field		
15-1011	Computer and information scientists, research	387	457	487	100	26%	Doctoral degree		
47-2111	Electricians	6,341	7,771	7,943	1,602	25%	Long-term on- the-job training		
11-3011	Administrative services managers	1,728	2,005	2,136	408	24%	Degree plus work experience		
11-3021	Computer and information systems managers	1,335	1,548	1,657	322	24%	Degree plus work experience		

Exhibit C-33 NEVADA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
49-2093	Electrical and electronics installers and repairers, transportation equipment	53	61	65	12	23%	Postsecondary vocational award			
49-9042	Maintenance and repair workers, general	13,029	14,916	15,969	2,940	23%	Moderate-term on-the-job training			
17-3022	Civil engineering technicians	1,153	1,351	1,408	255	22%	Associate's degree			
15-1099	Computer specialists, all other	1,773	2,017	2,144	371	21%	Associate's degree			
11-9041	Engineering managers	942	1,082	1,132	190	20%	Degree plus work experience			
29-9011	Occupational health and safety specialists	542	612	643	101	19%	Bachelor's degree			
33-3051	Police and sheriff's patrol officers	4,794	5,473	5,711	917	19%	Long-term on- the-job training			
47-4051	Highway maintenance workers	680	771	808	128	19%	Moderate-term on-the-job training			
17-3029	Engineering technicians, except drafters, all other	391	437	460	69	18%	Associate's degree			
17-1012	Landscape architects	371	422	433	62	17%	Bachelor's degree			
17-3011	Architectural and civil drafters	811	946	942	131	16%	Postsecondary vocational award			
53-6041	Traffic technicians	19	22	22	3	16%	Short-term on- the-job training			
11-1021	General and operations managers	17,386	19,586	19,947	2,561	15%	Degree plus work experience			
17-1022	Surveyors	645	738	740	95	15%	Bachelor's degree			
17-2072	Electronics engineers, except computer	663	728	762	99	15%	Bachelor's degree			
11-3071	Transportation, storage, and distribution managers	1,001	1,107	1,128	127	13%	Work experience in a related field			

Exhibit C-33
NEVADA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
17-2071	Electrical engineers	573	636	641	68	12%	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	1,214	1,330	1,363	149	12%	Associate's degree
43-2099	Communications equipment operators, all other	26	26	25	(1)	(4%)	Short-term on- the-job training

Exhibit C-34 NEW HAMPSHIRE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	1,558	1,861	2,113	555	36%	Bachelor's degree
13-1051	Cost estimators	1,107	1,262	1,405	298	27%	Work experience in a related field
17-2051	Civil engineers	1,253	1,435	1,559	306	24%	Bachelor's degree
13-1061	Emergency management specialists	74	84	90	16	22%	Work experience in a related field
15-2031	Operations research analysts	187	210	226	39	21%	Master's degree
17-1022	Surveyors	279	317	337	58	21%	Bachelor's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	6,420	7,235	7,757	1,337	21%	Work experience in a related field

Appendix C

Exhibit C-34 NEW HAMPSHIRE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
47-2111	Electricians	3,203	3,600	3,890	687	21%	Long-term on- the-job training					
17-3022	Civil engineering technicians	208	233	249	41	20%	Associate's degree					
47-4011	Construction and building inspectors	509	574	609	100	20%	Work experience in a related field					
49-9097	Signal and track switch repairers	171	193	206	35	20%	Moderate-term on-the-job training					
11-9021	Construction managers	5,390	6,055	6,406	1,016	19%	Bachelor's degree					
43-5031	Dispatchers	883	972	1,030	147	17%	Moderate-term on-the-job training					
17-3011	Architectural and civil drafters	342	381	396	54	16%	Postsecondary vocational award					
11-3011	Administrative services managers	583	637	670	87	15%	Degree plus work experience					
17-1012	Landscape architects	311	344	358	47	15%	Bachelor's degree					
11-1011	Chief executives	7,741	8,496	8,821	1,080	14%	Degree plus work experience					
11-3021	Computer and information systems managers	2,519	2,738	2,878	359	14%	Degree plus work experience					
15-1011	Computer and information scientists, research	366	395	414	48	13%	Doctoral degree					
15-1099	Computer specialists, all other	1,220	1,321	1,381	161	13%	Associate's degree					
49-9042	Maintenance and repair workers, general	5,054	5,440	5,726	672	13%	Moderate-term on-the-job training					
29-9011	Occupational health and safety specialists	258	278	290	32	12%	Bachelor's degree					
33-3051	Police and sheriff's patrol officers	2,927	3,103	3,181	254	9%	Long-term on- the-job training					

Exhibit C-34 NEW HAMPSHIRE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

soc	DOL Standard	# of 2010	# of 2015	# of 2020	Change (2010-	% Change (2010-	Education
Code 47-4051	Occupation Title Highway maintenance workers	Jobs 1,690	Jobs 1,796	Jobs 1,847	2020) 157	9%	Level Moderate-term on-the-job training
11-1021	General and operations managers	7,450	7,665	7,653	203	3%	Degree plus work experience
49-2093	Electrical and electronics installers and repairers, transportation equipment	35	35	36	1	3%	Postsecondary vocational award
17-3029	Engineering technicians, except drafters, all other	639	642	649	10	2%	Associate's degree
11-9041	Engineering managers	1,068	1,070	1,078	10	1%	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	458	464	456	(2)	0%	Work experience in a related field
43-2099	Communications equipment operators, all other	11	11	11	0	0%	Short-term on- the-job training
17-2071	Electrical engineers	1,303	1,274	1,267	(36)	(3%)	Bachelor's degree
17-2072	Electronics engineers, except computer	546	522	513	(33)	(6%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	880	829	807	(73)	(8%)	Associate's degree
53-6041	Traffic technicians	<10	<10	10			Short-term on- the-job training

Exhibit C-35
NEW JERSEY- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
15-1081	Network systems and data communications analysts	13,548	15,983	18,225	4,677	35%	Bachelor's degree		
49-9097	Signal and track switch repairers	753	885	954	201	27%	Moderate-term on-the-job training		
11-1011	Chief executives	29,538	34,481	36,793	7,255	25%	Degree plus work experience		
17-2051	Civil engineers	7,647	8,665	9,445	1,798	24%	Bachelor's degree		
11-9021	Construction managers	17,287	19,939	20,850	3,563	21%	Bachelor's degree		
13-1051	Cost estimators	4,971	5,564	5,909	938	19%	Work experience in a related field		
17-3011	Architectural and civil drafters	2,998	3,370	3,566	568	19%	Postsecondary vocational award		
15-1011	Computer and information scientists, research	2,589	2,861	3,039	450	17%	Doctoral degree		
47-1011	First-line supervisors/managers of construction trades and extraction workers	20,337	23,042	23,895	3,558	17%	Work experience in a related field		
17-1012	Landscape architects	1,404	1,557	1,630	226	16%	Bachelor's degree		
13-1061	Emergency management specialists	617	677	709	92	15%	Work experience in a related field		
15-2031	Operations research analysts	1,275	1,387	1,463	188	15%	Master's degree		
17-1022	Surveyors	1,308	1,432	1,501	193	15%	Bachelor's degree		
47-4011	Construction and building inspectors	4,431	4,870	5,095	664	15%	Work experience in a related field		
17-3022	Civil engineering technicians	1,407	1,531	1,609	202	14%	Associate's degree		

Exhibit C-35
NEW JERSEY- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
11-3021	Computer and information systems managers	14,494	15,416	16,062	1,568	11%	Degree plus work experience			
49-2093	Electrical and electronics installers and repairers, transportation equipment	311	326	343	32	10%	Postsecondary vocational award			
15-1099	Computer specialists, all other	9,405	9,937	10,215	810	9%	Associate's degree			
47-2111	Electricians	16,357	17,650	17,816	1,459	9%	Long-term on- the-job training			
43-5031	Dispatchers	3,544	3,749	3,798	254	7%	Moderate-term on-the-job training			
49-9042	Maintenance and repair workers, general	34,328	35,732	36,395	2,067	6%	Moderate-term on-the-job training			
11-3011	Administrative services managers	8,428	8,768	8,877	449	5%	Degree plus work experience			
29-9011	Occupational health and safety specialists	1,887	1,957	1,977	90	5%	Bachelor's degree			
11-9041	Engineering managers	6,025	6,125	6,269	244	4%	Degree plus work experience			
17-3029	Engineering technicians, except drafters, all other	1,174	1,167	1,170	(4)	0%	Associate's degree			
47-4051	Highway maintenance workers	2,101	2,146	2,108	7	0%	Moderate-term on-the-job training			
53-6041	Traffic technicians	217	220	217	0	0%	Short-term on- the-job training			
33-3051	Police and sheriff's patrol officers	22,841	23,127	22,609	(232)	(1%)	Long-term on- the-job training			
17-2071	Electrical engineers	3,801	3,742	3,736	(65)	(2%)	Bachelor's degree			
11-1021	General and operations managers	43,429	43,359	42,090	(1,339)	(3%)	Degree plus work experience			

Exhibit C-35
NEW JERSEY- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	4,405	4,298	4,129	(276)	(6%)	Work experience in a related field
17-2072	Electronics engineers, except computer	5,048	4,785	4,712	(336)	(7%)	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	3,184	3,008	2,918	(266)	(8%)	Associate's degree
43-2099	Communications equipment operators, all other	51	47	42	(9)	(18%)	Short-term on- the-job training

Exhibit C-36 NEW MEXICO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	1,284	1,521	1,701	417	32%	Bachelor's degree				
43-5031	Dispatchers	669	772	842	173	26%	Moderate-term on-the-job training				
13-1061	Emergency management specialists	124	143	154	30	24%	Work experience in a related field				
11-1011	Chief executives	5,983	6,868	7,310	1,327	22%	Degree plus work experience				
13-1051	Cost estimators	801	916	966	165	21%	Work experience in a related field				

Exhibit C-36 NEW MEXICO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-9021	Construction managers	4,335	4,965	5,190	855	20%	Bachelor's degree					
15-2031	Operations research analysts	344	386	413	69	20%	Master's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	7,953	9,126	9,540	1,587	20%	Work experience in a related field					
49-9097	Signal and track switch repairers	188	212	222	34	18%	Moderate-term on-the-job training					
33-3051	Police and sheriff's patrol officers	4,007	4,451	4,686	679	17%	Long-term on- the-job training					
47-4051	Highway maintenance workers	797	888	936	139	17%	Moderate-term on-the-job training					
15-1011	Computer and information scientists, research	366	404	421	55	15%	Doctoral degree					
11-3011	Administrative services managers	3,586	3,937	4,093	507	14%	Degree plus work experience					
49-9042	Maintenance and repair workers, general	9,160	10,003	10,475	1,315	14%	Moderate-term on-the-job training					
29-9011	Occupational health and safety specialists	759	828	858	99	13%	Bachelor's degree					
47-4011	Construction and building inspectors	789	861	883	94	12%	Work experience in a related field					
11-3021	Computer and information systems managers	1,152	1,245	1,279	127	11%	Degree plus work experience					
17-1012	Landscape architects	354	386	393	39	11%	Bachelor's degree					
47-2111	Electricians	4,117	4,504	4,554	437	11%	Long-term on- the-job training					
53-6041	Traffic technicians	72	77	79	7	10%	Short-term on- the-job training					
15-1099	Computer specialists, all other	1,158	1,231	1,262	104	9%	Associate's degree					

Exhibit C-36 NEW MEXICO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

						%	
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	Change (2010-2020)	Education Level
17-2051	Civil engineers	2,031	2,152	2,150	119	6%	Bachelor's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	96	101	101	5	5%	Postsecondary vocational award
17-3022	Civil engineering technicians	710	745	741	31	4%	Associate's degree
11-3071	Transportation, storage, and distribution managers	460	477	472	12	3%	Work experience in a related field
11-1021	General and operations managers	14,697	15,238	14,977	280	2%	Degree plus work experience
17-3029	Engineering technicians, except drafters, all other	1,113	1,143	1,137	24	2%	Associate's degree
17-3023	Electrical and electronic engineering technicians	1,979	1,978	1,956	(23)	(1%)	Associate's degree
11-9041	Engineering managers	1,373	1,383	1,351	(22)	(2%)	Degree plus work experience
17-2072	Electronics engineers, except computer	1,917	1,894	1,867	(50)	(3%)	Bachelor's degree
17-2071	Electrical engineers	1,150	1,140	1,099	(51)	(4%)	Bachelor's degree
17-1022	Surveyors	305	298	273	(32)	(10%)	Bachelor's degree
43-2099	Communications equipment operators, all other	46	43	39	(7)	(15%)	Short-term on- the-job training
17-3011	Architectural and civil drafters	810	762	665	(145)	(18%)	Postsecondary vocational award

Exhibit C-37 NEW YORK- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	27,315	32,285	37,052	9,737	36%	Bachelor's degree				
13-1051	Cost estimators	10,505	12,121	13,650	3,145	30%	Work experience in a related field				
11-9021	Construction managers	37,081	42,616	46,074	8,993	24%	Bachelor's degree				
47-1011	First-line supervisors/managers of construction trades and extraction workers	47,485	54,313	59,043	11,558	24%	Work experience in a related field				
11-1011	Chief executives	71,357	80,532	84,562	13,205	19%	Degree plus work experience				
47-2111	Electricians	39,888	44,133	47,292	7,404	19%	Long-term on- the-job training				
17-2051	Civil engineers	15,125	16,832	17,875	2,750	18%	Bachelor's degree				
17-3011	Architectural and civil drafters	6,039	6,815	7,142	1,103	18%	Postsecondary vocational award				
13-1061	Emergency management specialists	846	934	984	138	16%	Work experience in a related field				
15-1011	Computer and information scientists, research	3,393	3,733	3,924	531	16%	Doctoral degree				
15-2031	Operations research analysts	2,301	2,500	2,659	358	16%	Master's degree				
17-1012	Landscape architects	2,992	3,313	3,450	458	15%	Bachelor's degree				
49-9097	Signal and track switch repairers	1,930	2,111	2,179	249	13%	Moderate-term on-the-job training				
15-1099	Computer specialists, all other	7,162	7,688	8,005	843	12%	Associate's degree				
17-1022	Surveyors	1,824	1,980	2,032	208	11%	Bachelor's degree				
17-3022	Civil engineering technicians	2,231	2,401	2,478	247	11%	Associate's degree				

Exhibit C-37 NEW YORK- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
47-4011	Construction and building inspectors	8,179	8,832	9,101	922	11%	Work experience in a related field			
11-3021	Computer and information systems managers	24,673	25,976	27,020	2,347	10%	Degree plus work experience			
29-9011	Occupational health and safety specialists	2,735	2,862	2,941	206	8%	Bachelor's degree			
49-9042	Maintenance and repair workers, general	96,655	101,047	104,413	7,758	8%	Moderate-term on-the-job training			
11-3011	Administrative services managers	18,931	19,697	20,081	1,150	6%	Degree plus work experience			
43-5031	Dispatchers	6,466	6,786	6,873	407	6%	Moderate-term on-the-job training			
11-9041	Engineering managers	7,411	7,444	7,532	121	2%	Degree plus work experience			
47-4051	Highway maintenance workers	14,105	14,333	14,128	23	0%	Moderate-term on-the-job training			
33-3051	Police and sheriff's patrol officers	51,320	51,939	50,911	(409)	(1%)	Long-term on- the-job training			
11-1021	General and operations managers	100,653	100,601	98,537	(2,116)	(2%)	Degree plus work experience			
17-3029	Engineering technicians, except drafters, all other	2,416	2,383	2,376	(40)	(2%)	Associate's degree			
53-6041	Traffic technicians	1,273	1,274	1,236	(37)	(3%)	Short-term on- the-job training			
17-2071	Electrical engineers	9,591	9,307	9,162	(429)	(4%)	Bachelor's degree			
17-2072	Electronics engineers, except computer	5,357	5,126	5,068	(289)	(5%)	Bachelor's degree			

technicians
Communications

all other

equipment operators,

123

43-2099

	Exhibit C-37 NEW YORK- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
49-2093	Electrical and electronics installers and repairers, transportation equipment	591	579	562	(29)	(5%)	Postsecondary vocational award			
11-3071	Transportation, storage, and distribution managers	5,099	4,942	4,704	(395)	(8%)	Work experience in a related field			
17-3023	Electrical and electronic engineering	7,614	7,107	6,812	(802)	(11%)	Associate's degree			

115

Short-term on-

the-job training

(17)

(14%)

106

1	Exhibit C-38 NORTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
15-1081	Network systems and data communications analysts	9,549	11,784	13,700	4,151	43%	Bachelor's degree				
13-1051	Cost estimators	5,501	6,663	7,528	2,027	37%	Work experience in a related field				
47-1011	First-line supervisors/managers of construction trades and extraction workers	38,874	45,969	49,869	10,995	28%	Work experience in a related field				
15-2031	Operations research analysts	2,080	2,401	2,637	557	27%	Master's degree				

Exhibit C-38 NORTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-9021	Construction managers	27,015	31,790	33,994	6,979	26%	Bachelor's degree				
13-1061	Emergency management specialists	536	619	673	137	26%	Work experience in a related field				
49-9097	Signal and track switch repairers	1,034	1,216	1,303	269	26%	Moderate-term on-the-job training				
11-1011	Chief executives	28,964	33,772	36,093	7,129	25%	Degree plus work experience				
17-2051	Civil engineers	6,799	7,881	8,459	1,660	24%	Bachelor's degree				
15-1011	Computer and information scientists, research	1,380	1,585	1,702	322	23%	Doctoral degree				
17-1012	Landscape architects	1,630	1,887	1,998	368	23%	Bachelor's degree				
47-2111	Electricians	19,277	22,102	23,662	4,385	23%	Long-term on- the-job training				
47-4011	Construction and building inspectors	3,687	4,190	4,433	746	20%	Work experience in a related field				
43-5031	Dispatchers	3,478	3,883	4,148	670	19%	Moderate-term on-the-job training				
11-3021	Computer and information systems managers	11,490	12,723	13,553	2,063	18%	Degree plus work experience				
15-1099	Computer specialists, all other	4,572	5,075	5,387	815	18%	Associate's degree				
29-9011	Occupational health and safety specialists	1,300	1,443	1,540	240	18%	Bachelor's degree				
11-3011	Administrative services managers	3,821	4,231	4,471	650	17%	Degree plus work experience				
17-3022	Civil engineering technicians	3,585	3,989	4,167	582	16%	Associate's degree				
17-1022	Surveyors	962	1,077	1,109	147	15%	Bachelor's degree				

Exhibit C-38 NORTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3011	Architectural and civil drafters	2,903	3,240	3,297	394	14%	Postsecondary vocational award				
17-3029	Engineering technicians, except drafters, all other	1,007	1,084	1,144	137	14%	Associate's degree				
49-9042	Maintenance and repair workers, general	45,782	49,293	52,233	6,451	14%	Moderate-term on-the-job training				
11-9041	Engineering managers	5,576	5,956	6,252	676	12%	Degree plus work experience				
47-4051	Highway maintenance workers	1,058	1,148	1,189	131	12%	Moderate-term on-the-job training				
33-3051	Police and sheriff's patrol officers	19,320	20,702	21,288	1,968	10%	Long-term on- the-job training				
17-2071	Electrical engineers	2,638	2,770	2,872	234	9%	Bachelor's degree				
53-6041	Traffic technicians	182	194	198	16	9%	Short-term on- the-job training				
17-2072	Electronics engineers, except computer	3,552	3,673	3,787	235	7%	Bachelor's degree				
11-1021	General and operations managers	55,191	58,016	58,493	3,302	6%	Degree plus work experience				
17-3023	Electrical and electronic engineering technicians	2,946	3,044	3,136	190	6%	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	283	295	299	16	6%	Postsecondary vocational award				
11-3071	Transportation, storage, and distribution managers	2,865	2,931	2,904	39	1%	Work experience in a related field				

1	Exhibit C-38 NORTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
43-2099	Communications equipment operators,	18	18	18	0	0%	Short-term on- the-job training				

	Exhibit C-39 NORTH DAKOTA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	426	517	601	175	41%	Bachelor's degree					
15-2031	Operations research analysts	85	99	109	24	28%	Master's degree					
13-1051	Cost estimators	709	814	899	190	27%	Work experience in a related field					
47-2111	Electricians	2,260	2,591	2,871	611	27%	Long-term on- the-job training					
17-1022	Surveyors	231	266	289	58	25%	Bachelor's degree					
17-2051	Civil engineers	742	843	916	174	23%	Bachelor's degree					
11-3021	Computer and information systems managers	515	582	627	112	22%	Degree plus work experience					
15-1011	Computer and information scientists, research	77	87	94	17	22%	Doctoral degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	2,919	3,264	3,462	543	19%	Work experience in a related field					

Exhibit C-39 NORTH DAKOTA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
47-4011	Construction and building inspectors	202	227	241	39	19%	Work experience in a related field					
11-9021	Construction managers	1,757	1,949	2,064	307	17%	Bachelor's degree					
15-1099	Computer specialists, all other	266	292	310	44	17%	Associate's degree					
17-3011	Architectural and civil drafters	241	269	283	42	17%	Postsecondary vocational award					
17-3022	Civil engineering technicians	472	524	554	82	17%	Associate's degree					
13-1061	Emergency management specialists	86	94	100	14	16%	Work experience in a related field					
11-1011	Chief executives	3,244	3,574	3,729	485	15%	Degree plus work experience					
11-9041	Engineering managers	341	377	393	52	15%	Degree plus work experience					
49-9097	Signal and track switch repairers	121	132	138	17	14%	Moderate-term on-the-job training					
17-1012	Landscape architects	66	71	74	8	12%	Bachelor's degree					
43-5031	Dispatchers	209	226	234	25	12%	Moderate-term on-the-job training					
17-2071	Electrical engineers	255	276	284	29	11%	Bachelor's degree					
17-3029	Engineering technicians, except drafters, all other	119	127	131	12	10%	Associate's degree					
49-9042	Maintenance and repair workers, general	2,867	3,052	3,153	286	10%	Moderate-term on-the-job training					
11-3011	Administrative services managers	466	494	506	40	9%	Degree plus work experience					
17-2072	Electronics engineers, except computer	280	300	305	25	9%	Bachelor's degree					

Exhibit C-39
NORTH DAKOTA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
29-9011	Occupational health and safety specialists	116	124	127	11	9%	Bachelor's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	48	50	52	4	8%	Postsecondary vocational award
47-4051	Highway maintenance workers	783	820	831	48	6%	Moderate-term on-the-job training
17-3023	Electrical and electronic engineering technicians	328	343	343	15	5%	Associate's degree
33-3051	Police and sheriff's patrol officers	1,043	1,088	1,097	54	5%	Long-term on- the-job training
11-1021	General and operations managers	4,521	4,618	4,545	24	1%	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	333	340	334	1	0%	Work experience in a related field
43-2099	Communications equipment operators, all other	20	19	17	(3)	(15%)	Short-term on- the-job training
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training

Exhibit C-40 OHIO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1081	Network systems and data communications	13,533	15,960	18,147	4,614	34%	Bachelor's			

analysts

degree

Exhibit C-40 OHIO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
13-1051	Cost estimators	9,554	10,625	11,564	2,010	21%	Work experience in a related field					
11-9021	Construction managers	24,401	27,135	28,224	3,823	16%	Bachelor's degree					
15-2031	Operations research analysts	1,038	1,133	1,199	161	16%	Master's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	29,362	32,573	34,065	4,703	16%	Work experience in a related field					
11-1011	Chief executives	39,973	44,109	45,888	5,915	15%	Degree plus work experience					
17-2051	Civil engineers	7,923	8,608	9,091	1,168	15%	Bachelor's degree					
15-1011	Computer and information scientists, research	1,939	2,107	2,205	266	14%	Doctoral degree					
13-1061	Emergency management specialists	626	675	707	81	13%	Work experience in a related field					
49-9097	Signal and track switch repairers	1,387	1,504	1,551	164	12%	Moderate-term on-the-job training					
47-4011	Construction and building inspectors	4,188	4,487	4,651	463	11%	Work experience in a related field					
11-3021	Computer and information systems managers	9,781	10,403	10,778	997	10%	Degree plus work experience					
17-1022	Surveyors	1,229	1,308	1,348	119	10%	Bachelor's degree					
43-5031	Dispatchers	4,226	4,471	4,630	404	10%	Moderate-term on-the-job training					
17-1012	Landscape architects	1,609	1,718	1,757	148	9%	Bachelor's degree					
17-3022	Civil engineering technicians	1,970	2,082	2,153	183	9%	Associate's degree					

Exhibit C-40 OHIO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-3011	Architectural and civil drafters	2,703	2,871	2,925	222	8%	Postsecondary vocational award					
11-3011	Administrative services managers	9,145	9,583	9,799	654	7%	Degree plus work experience					
49-9042	Maintenance and repair workers, general	57,187	58,801	60,592	3,405	6%	Moderate-term on-the-job training					
15-1099	Computer specialists, all other	8,680	9,026	9,136	456	5%	Associate's degree					
47-2111	Electricians	25,937	26,864	27,065	1,128	4%	Long-term on- the-job training					
29-9011	Occupational health and safety specialists	2,173	2,217	2,242	69	3%	Bachelor's degree					
33-3051	Police and sheriff's patrol officers	24,062	24,360	24,328	266	1%	Long-term on- the-job training					
47-4051	Highway maintenance workers	10,096	10,150	10,069	(27)	0%	Moderate-term on-the-job training					
53-6041	Traffic technicians	150	151	150	0	0%	Short-term on- the-job training					
11-1021	General and operations managers	36,034	36,289	35,782	(252)	(1%)	Degree plus work experience					
11-9041	Engineering managers	5,722	5,587	5,578	(144)	(3%)	Degree plus work experience					
11-3071	Transportation, storage, and distribution managers	4,378	4,356	4,185	(193)	(4%)	Work experience in a related field					
17-2071	Electrical engineers	4,532	4,389	4,338	(194)	(4%)	Bachelor's degree					
17-2072	Electronics engineers, except computer	3,324	3,209	3,159	(165)	(5%)	Bachelor's degree					
17-3029	Engineering technicians, except drafters, all other	3,507	3,393	3,329	(178)	(5%)	Associate's degree					
43-2099	Communications equipment operators, all other	22	22	21	(1)	(5%)	Short-term on- the-job training					

	Exhibit C-40 OHIO- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3023	Electrical and electronic engineering technicians	3,533	3,379	3,325	(208)	(6%)	Associate's degree				
49-2093	Electrical and electronics installers and repairers, transportation	288	279	272	(16)	(6%)	Postsecondary vocational award				

Exhibit C-41 OKLAHOMA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
15-1081	Network systems and data communications analysts	2,649	3,065	3,468	819	31%	Bachelor's degree	
13-1051	Cost estimators	1,906	2,202	2,451	545	29%	Work experience in a related field	
17-2051	Civil engineers	2,200	2,456	2,644	444	20%	Bachelor's degree	
15-2031	Operations research analysts	463	513	552	89	19%	Master's degree	
47-1011	First-line supervisors/managers of construction trades and extraction workers	18,874	21,287	22,386	3,512	19%	Work experience in a related field	
13-1061	Emergency management specialists	289	319	339	50	17%	Work experience in a related field	
17-1022	Surveyors	527	587	619	92	17%	Bachelor's degree	

Exhibit C-41
OKLAHOMA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
17-3022	Civil engineering technicians	737	814	863	126	17%	Associate's degree		
49-9097	Signal and track switch repairers	395	443	464	69	17%	Moderate-term on-the-job training		
11-9021	Construction managers	9,713	10,721	11,312	1,599	16%	Bachelor's degree		
47-4011	Construction and building inspectors	1,226	1,351	1,424	198	16%	Work experience in a related field		
11-1011	Chief executives	21,481	23,772	24,715	3,234	15%	Degree plus work experience		
17-3011	Architectural and civil drafters	1,129	1,247	1,297	168	15%	Postsecondary vocational award		
49-2093	Electrical and electronics installers and repairers, transportation equipment	293	318	336	43	15%	Postsecondary vocational award		
43-5031	Dispatchers	1,701	1,855	1,938	237	14%	Moderate-term on-the-job training		
11-3021	Computer and information systems managers	2,250	2,416	2,545	295	13%	Degree plus work experience		
15-1011	Computer and information scientists, research	467	497	525	58	12%	Doctoral degree		
47-2111	Electricians	8,650	9,309	9,679	1,029	12%	Long-term on- the-job training		
17-1012	Landscape architects	498	533	554	56	11%	Bachelor's degree		
11-3011	Administrative services managers	3,930	4,165	4,267	337	9%	Degree plus work experience		
49-9042	Maintenance and repair workers, general	16,126	17,137	17,649	1,523	9%	Moderate-term on-the-job training		
15-1099	Computer specialists, all other	1,545	1,612	1,662	117	8%	Associate's degree		

Exhibit C-41
OKLAHOMA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
33-3051	Police and sheriff's patrol officers	7,372	7,748	7,853	481	7%	Long-term on- the-job training	
47-4051	Highway maintenance workers	3,481	3,664	3,710	229	7%	Moderate-term on-the-job training	
11-9041	Engineering managers	1,574	1,642	1,675	101	6%	Degree plus work experience	
17-2072	Electronics engineers, except computer	1,644	1,680	1,728	84	5%	Bachelor's degree	
29-9011	Occupational health and safety specialists	1,053	1,098	1,108	55	5%	Bachelor's degree	
53-6041	Traffic technicians	298	311	313	15	5%	Short-term on- the-job training	
17-2071	Electrical engineers	1,628	1,674	1,680	52	3%	Bachelor's degree	
17-3029	Engineering technicians, except drafters, all other	784	799	803	19	2%	Associate's degree	
11-1021	General and operations managers	31,162	31,985	31,458	296	1%	Degree plus work experience	
11-3071	Transportation, storage, and distribution managers	1,040	1,048	1,028	(12)	(1%)	Work experience in a related field	
17-3023	Electrical and electronic engineering technicians	2,005	2,005	1,972	(33)	(2%)	Associate's degree	
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training	

Exhibit C-42 OREGON- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	3,698	4,329	4,881	1,183	32%	Bachelor's degree					
13-1061	Emergency management specialists	182	209	224	42	23%	Work experience in a related field					
15-2031	Operations research analysts	388	438	475	87	22%	Master's degree					
11-1011	Chief executives	14,097	15,849	16,659	2,562	18%	Degree plus work experience					
43-5031	Dispatchers	1,140	1,267	1,343	203	18%	Moderate-term on-the-job training					
15-1011	Computer and information scientists, research	716	791	834	118	16%	Doctoral degree					
17-1012	Landscape architects	843	939	974	131	16%	Bachelor's degree					
13-1051	Cost estimators	3,375	3,739	3,839	464	14%	Work experience in a related field					
11-3021	Computer and information systems managers	3,725	4,009	4,209	484	13%	Degree plus work experience					
17-2051	Civil engineers	4,843	5,276	5,463	620	13%	Bachelor's degree					
47-4011	Construction and building inspectors	1,742	1,905	1,969	227	13%	Work experience in a related field					
49-9097	Signal and track switch repairers	450	491	505	55	12%	Moderate-term on-the-job training					
11-3011	Administrative services managers	1,825	1,962	2,022	197	11%	Degree plus work experience					
49-9042	Maintenance and repair workers, general	14,068	14,991	15,511	1,443	10%	Moderate-term on-the-job training					
11-9021	Construction managers	7,872	8,591	8,579	707	9%	Bachelor's degree					

Exhibit C-42 OREGON- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-3022	Civil engineering technicians	1,204	1,288	1,315	111	9%	Associate's degree					
29-9011	Occupational health and safety specialists	895	951	973	78	9%	Bachelor's degree					
33-3051	Police and sheriff's patrol officers	5,310	5,668	5,796	486	9%	Long-term on- the-job training					
47-4051	Highway maintenance workers	1,967	2,095	2,138	171	9%	Moderate-term on-the-job training					
15-1099	Computer specialists, all other	5,663	5,991	6,130	467	8%	Associate's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	9,831	10,675	10,579	748	8%	Work experience in a related field					
53-6041	Traffic technicians	67	70	71	4	6%	Short-term on- the-job training					
17-1022	Surveyors	582	613	610	28	5%	Bachelor's degree					
11-9041	Engineering managers	2,265	2,326	2,364	99	4%	Degree plus work experience					
17-3011	Architectural and civil drafters	1,681	1,772	1,743	62	4%	Postsecondary vocational award					
17-2071	Electrical engineers	1,702	1,728	1,742	40	2%	Bachelor's degree					
17-2072	Electronics engineers, except computer	2,478	2,495	2,524	46	2%	Bachelor's degree					
17-3023	Electrical and electronic engineering technicians	2,727	2,737	2,749	22	1%	Associate's degree					
49-2093	Electrical and electronics installers and repairers, transportation equipment	237	241	240	3	1%	Postsecondary vocational award					
11-1021	General and operations managers	20,279	20,721	20,308	29	0%	Degree plus work experience					

Exhibit C-42
OREGON- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	1,380	1,403	1,375	(5)	0%	Work experience in a related field
17-3029	Engineering technicians, except drafters, all other	1,618	1,597	1,580	(38)	(2%)	Associate's degree
47-2111	Electricians	7,364	7,475	7,104	(260)	(4%)	Long-term on- the-job training
43-2099	Communications equipment operators, all other	18	17	16	(2)	(11%)	Short-term on- the-job training

Exhibit C-43 PENNSYLVANIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	10,640	12,449	13,920	3,280	31%	Bachelor's degree
13-1051	Cost estimators	10,531	11,631	12,441	1,910	18%	Work experience in a related field
15-2031	Operations research analysts	2,329	2,564	2,715	386	17%	Master's degree
49-9097	Signal and track switch repairers	1,066	1,182	1,239	173	16%	Moderate-term on-the-job training
11-9021	Construction managers	25,941	28,706	29,889	3,948	15%	Bachelor's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	35,921	39,490	41,159	5,238	15%	Work experience in a related field

Exhibit C-43
PENNSYLVANIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-2051	Civil engineers	13,150	14,295	14,840	1,690	13%	Bachelor's degree				
11-1011	Chief executives	50,555	55,023	56,719	6,164	12%	Degree plus work experience				
13-1061	Emergency management specialists	1,114	1,203	1,248	134	12%	Work experience in a related field				
15-1011	Computer and information scientists, research	2,483	2,681	2,791	308	12%	Doctoral degree				
11-3021	Computer and information systems managers	9,745	10,376	10,650	905	9%	Degree plus work experience				
47-4011	Construction and building inspectors	6,140	6,563	6,692	552	9%	Work experience in a related field				
11-3011	Administrative services managers	9,143	9,600	9,748	605	7%	Degree plus work experience				
17-1012	Landscape architects	2,061	2,192	2,207	146	7%	Bachelor's degree				
43-5031	Dispatchers	3,843	4,039	4,106	263	7%	Moderate-term on-the-job training				
17-3022	Civil engineering technicians	2,835	2,985	3,009	174	6%	Associate's degree				
15-1099	Computer specialists, all other	6,860	7,141	7,198	338	5%	Associate's degree				
29-9011	Occupational health and safety specialists	2,461	2,547	2,575	114	5%	Bachelor's degree				
47-2111	Electricians	26,895	28,013	28,347	1,452	5%	Long-term on- the-job training				
49-9042	Maintenance and repair workers, general	63,233	65,408	66,639	3,406	5%	Moderate-term on-the-job training				
17-1022	Surveyors	1,988	2,087	2,067	79	4%	Bachelor's degree				
11-9041	Engineering managers	5,236	5,317	5,351	115	2%	Degree plus work experience				

Exhibit C-43
PENNSYLVANIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
17-3029	Engineering technicians, except drafters, all other	1,626	1,642	1,643	17	1%	Associate's degree				
47-4051	Highway maintenance workers	9,786	9,917	9,798	12	0%	Moderate-term on-the-job training				
53-6041	Traffic technicians	98	99	98	0	0%	Short-term on- the-job training				
11-1021	General and operations managers	49,824	50,275	49,105	(719)	(1%)	Degree plus work experience				
17-3011	Architectural and civil drafters	5,443	5,599	5,381	(62)	(1%)	Postsecondary vocational award				
33-3051	Police and sheriff's patrol officers	28,243	28,425	27,873	(370)	(1%)	Long-term on- the-job training				
17-2072	Electronics engineers, except computer	5,220	5,161	5,125	(95)	(2%)	Bachelor's degree				
11-3071	Transportation, storage, and distribution managers	3,782	3,790	3,658	(124)	(3%)	Work experience in a related field				
17-2071	Electrical engineers	5,673	5,600	5,488	(185)	(3%)	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	336	326	317	(19)	(6%)	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	6,993	6,720	6,505	(488)	(7%)	Associate's degree				
43-2099	Communications equipment operators, all other	164	152	136	(28)	(17%)	Short-term on- the-job training				

Exhibit C-44
RHODE ISLAND- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	1,160	1,425	1,672	512	44%	Bachelor's degree					
15-1011	Computer and information scientists, research	461	526	577	116	25%	Doctoral degree					
15-2031	Operations research analysts	72	83	90	18	25%	Master's degree					
13-1051	Cost estimators	697	793	856	159	23%	Work experience in a related field					
11-3021	Computer and information systems managers	1,235	1,390	1,505	270	22%	Degree plus work experience					
49-9097	Signal and track switch repairers	84	96	102	18	21%	Moderate-term on-the-job training					
13-1061	Emergency management specialists	43	48	51	8	19%	Work experience in a related field					
11-9021	Construction managers	2,040	2,306	2,404	364	18%	Bachelor's degree					
47-1011	First-line supervisors/managers of construction trades and extraction workers	2,726	3,067	3,195	469	17%	Work experience in a related field					
17-2051	Civil engineers	745	820	861	116	16%	Bachelor's degree					
11-1011	Chief executives	3,914	4,337	4,494	580	15%	Degree plus work experience					
15-1099	Computer specialists, all other	1,109	1,202	1,257	148	13%	Associate's degree					
47-4011	Construction and building inspectors	308	336	348	40	13%	Work experience in a related field					
17-1012	Landscape architects	177	193	199	22	12%	Bachelor's degree					
17-3022	Civil engineering technicians	338	362	372	34	10%	Associate's degree					

Exhibit C-44
RHODE ISLAND- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3011	Administrative services managers	730	778	794	64	9%	Degree plus work experience				
17-1022	Surveyors	159	171	174	15	9%	Bachelor's degree				
17-3011	Architectural and civil drafters	344	370	375	31	9%	Postsecondary vocational award				
29-9011	Occupational health and safety specialists	95	100	102	7	7%	Bachelor's degree				
49-9042	Maintenance and repair workers, general	4,256	4,455	4,564	308	7%	Moderate-term on-the-job training				
11-9041	Engineering managers	488	505	516	28	6%	Degree plus work experience				
43-5031	Dispatchers	412	435	437	25	6%	Moderate-term on-the-job training				
17-3029	Engineering technicians, except drafters, all other	303	313	317	14	5%	Associate's degree				
17-2072	Electronics engineers, except computer	1,082	1,100	1,114	32	3%	Bachelor's degree				
47-2111	Electricians	2,114	2,211	2,176	62	3%	Long-term on- the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	29	30	30	1	3%	Postsecondary vocational award				
17-2071	Electrical engineers	437	445	445	8	2%	Bachelor's degree				
11-3071	Transportation, storage, and distribution managers	215	221	217	2	1%	Work experience in a related field				
11-1021	General and operations managers	4,889	4,965	4,865	(24)	0%	Degree plus work experience				
47-4051	Highway maintenance workers	553	564	553	0	0%	Moderate-term on-the-job training				

53-6041

Traffic technicians

	Exhibit C-44 RHODE ISLAND- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-3023	Electrical and electronic engineering technicians	456	456	452	(4)	(1%)	Associate's degree					
33-3051	Police and sheriff's patrol officers	1,938	1,967	1,926	(12)	(1%)	Long-term on- the-job training					
43-2099	Communications equipment operators, all other	11	11	10	(1)	(9%)	Short-term on- the-job training					
53-6041	Traffic technicians	<10	<10	<10			Short-term on-					

<10

<10

the-job training

<10

	Exhibit C-45 SOUTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	3,524	4,297	4,930	1,406	40%	Bachelor's degree					
13-1051	Cost estimators	2,737	3,211	3,552	815	30%	Work experience in a related field					
15-1011	Computer and information scientists, research	621	728	802	181	29%	Doctoral degree					
17-1022	Surveyors	943	1,097	1,206	263	28%	Bachelor's degree					
49-9097	Signal and track switch repairers	453	539	580	127	28%	Moderate-term on-the-job training					
17-2051	Civil engineers	4,273	4,843	5,371	1,098	26%	Bachelor's degree					
11-9021	Construction managers	11,272	13,242	14,078	2,806	25%	Bachelor's degree					

C-118 Appendix C

Exhibit C-45 SOUTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-2031	Operations research analysts	487	558	611	124	25%	Master's degree					
13-1061	Emergency management specialists	224	256	276	52	23%	Work experience in a related field					
47-1011	First-line supervisors/managers of construction trades and extraction workers	15,513	17,926	19,030	3,517	23%	Work experience in a related field					
47-4011	Construction and building inspectors	1,469	1,668	1,785	316	22%	Work experience in a related field					
17-1012	Landscape architects	789	896	957	168	21%	Bachelor's degree					
17-2072	Electronics engineers, except computer	1,109	1,237	1,337	228	21%	Bachelor's degree					
17-3022	Civil engineering technicians	1,278	1,434	1,551	273	21%	Associate's degree					
11-1011	Chief executives	16,729	19,001	20,009	3,280	20%	Degree plus work experience					
15-1099	Computer specialists, all other	1,633	1,807	1,923	290	18%	Associate's degree					
43-5031	Dispatchers	1,619	1,803	1,906	287	18%	Moderate-term on-the-job training					
17-3011	Architectural and civil drafters	1,226	1,350	1,434	208	17%	Postsecondary vocational award					
11-3021	Computer and information systems managers	2,686	2,950	3,124	438	16%	Degree plus work experience					
11-3011	Administrative services managers	3,490	3,778	3,928	438	13%	Degree plus work experience					
11-9041	Engineering managers	2,764	2,951	3,116	352	13%	Degree plus work experience					
29-9011	Occupational health and safety specialists	552	592	619	67	12%	Bachelor's degree					

Exhibit C-45 SOUTH CAROLINA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
49-9042	Maintenance and repair workers, general	26,796	28,410	29,544	2,748	10%	Moderate-term on-the-job training		
17-3029	Engineering technicians, except drafters, all other	415	435	453	38	9%	Associate's degree		
17-2071	Electrical engineers	2,162	2,269	2,345	183	8%	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	2,002	2,114	2,167	165	8%	Associate's degree		
47-4051	Highway maintenance workers	534	569	576	42	8%	Moderate-term on-the-job training		
33-3051	Police and sheriff's patrol officers	9,642	10,131	10,162	520	5%	Long-term on- the-job training		
53-6041	Traffic technicians	76	80	80	4	5%	Short-term on- the-job training		
11-3071	Transportation, storage, and distribution managers	1,275	1,334	1,330	55	4%	Work experience in a related field		
11-1021	General and operations managers	25,467	26,273	26,142	675	3%	Degree plus work experience		
49-2093	Electrical and electronics installers and repairers, transportation equipment	207	211	211	4	2%	Postsecondary vocational award		
47-2111	Electricians	8,825	8,967	8,775	(50)	(1%)	Long-term on- the-job training		
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training		

Exhibit C-46 SOUTH DAKOTA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
11-1011	Chief executives	3,392	3,799	3,993	601	18%	Degree plus work experience		
11-1021	General and operations managers	3,364	3,575	3,643	279	8%	Degree plus work experience		
11-3011	Administrative services managers	344	376	397	53	15%	Degree plus work experience		
11-3021	Computer and information systems managers	243	267	288	45	19%	Degree plus work experience		
11-3071	Transportation, storage, and distribution managers	148	151	152	4	3%	Work experience in a related field		
11-9021	Construction managers	2,014	2,264	2,399	385	19%	Bachelor's degree		
11-9041	Engineering managers	137	150	160	23	17%	Degree plus work experience		
13-1051	Cost estimators	647	806	956	309	48%	Work experience in a related field		
13-1061	Emergency management specialists	109	119	125	16	15%	Work experience in a related field		
15-1011	Computer and information scientists, research	94	106	113	19	20%	Doctoral degree		
15-1081	Network systems and data communications analysts	1,072	1,353	1,616	544	51%	Bachelor's degree		
15-1099	Computer specialists, all other	233	253	267	34	15%	Associate's degree		
15-2031	Operations research analysts	76	88	97	21	28%	Master's degree		
17-1012	Landscape architects	123	137	145	22	18%	Bachelor's degree		
17-1022	Surveyors	135	153	162	27	20%	Bachelor's degree		
17-2051	Civil engineers	862	993	1,078	216	25%	Bachelor's degree		

Exhibit C-46 SOUTH DAKOTA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
17-2071	Electrical engineers	208	224	233	25	12%	Bachelor's degree		
17-2072	Electronics engineers, except computer	150	159	166	16	11%	Bachelor's degree		
17-3011	Architectural and civil drafters	271	308	325	54	20%	Postsecondary vocational award		
17-3022	Civil engineering technicians	429	487	518	89	21%	Associate's degree		
17-3023	Electrical and electronic engineering technicians	238	246	250	12	5%	Associate's degree		
17-3029	Engineering technicians, except drafters, all other	105	110	114	9	9%	Associate's degree		
29-9011	Occupational health and safety specialists	154	166	173	19	12%	Bachelor's degree		
33-3051	Police and sheriff's patrol officers	1,568	1,618	1,609	41	3%	Long-term on- the-job training		
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training		
43-5031	Dispatchers	335	359	370	35	10%	Moderate-term on-the-job training		
47-1011	First-line supervisors/managers of construction trades and extraction workers	3,085	3,624	4,026	941	31%	Work experience in a related field		
47-2111	Electricians	2,058	2,466	2,779	721	35%	Long-term on- the-job training		
47-4011	Construction and building inspectors	238	268	285	47	20%	Work experience in a related field		
47-4051	Highway maintenance workers	1,327	1,378	1,380	53	4%	Moderate-term on-the-job training		

Exhibit C-46
SOUTH DAKOTA- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
49-2093	Electrical and electronics installers and repairers, transportation equipment	50	54	56	6	12%	Postsecondary vocational award
49-9042	Maintenance and repair workers, general	2,651	2,918	3,108	457	17%	Moderate-term on-the-job training
49-9097	Signal and track switch repairers	103	112	116	13	13%	Moderate-term on-the-job training
53-6041	Traffic technicians	<10	<10	<10			Short-term on- the-job training

Exhibit C-47 TENNESSEE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	4,444	5,356	6,113	1,669	38%	Bachelor's degree
13-1051	Cost estimators	3,471	4,057	4,551	1,080	31%	Work experience in a related field
15-2031	Operations research analysts	793	911	1,012	219	28%	Master's degree
47-2111	Electricians	15,049	17,255	18,906	3,857	26%	Long-term on- the-job training
47-1011	First-line supervisors/managers of construction trades and extraction workers	21,850	24,984	26,660	4,810	22%	Work experience in a related field

Exhibit C-47
TENNESSEE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
13-1061	Emergency management specialists	389	440	472	83	21%	Work experience in a related field		
49-9097	Signal and track switch repairers	789	906	955	166	21%	Moderate-term on-the-job training		
11-3021	Computer and information systems managers	4,968	5,524	5,961	993	20%	Degree plus work experience		
11-9021	Construction managers	19,462	22,141	23,369	3,907	20%	Bachelor's degree		
15-1011	Computer and information scientists, research	829	932	990	161	19%	Doctoral degree		
43-5031	Dispatchers	2,690	2,988	3,180	490	18%	Moderate-term on-the-job training		
15-1099	Computer specialists, all other	2,580	2,836	3,012	432	17%	Associate's degree		
11-1011	Chief executives	29,054	32,281	33,625	4,571	16%	Degree plus work experience		
17-2051	Civil engineers	3,485	3,859	4,026	541	16%	Bachelor's degree		
47-4011	Construction and building inspectors	2,008	2,230	2,326	318	16%	Work experience in a related field		
11-3011	Administrative services managers	6,179	6,755	7,116	937	15%	Degree plus work experience		
17-1012	Landscape architects	973	1,076	1,105	132	14%	Bachelor's degree		
17-3022	Civil engineering technicians	1,031	1,123	1,157	126	12%	Associate's degree		
29-9011	Occupational health and safety specialists	858	916	953	95	11%	Bachelor's degree		
49-9042	Maintenance and repair workers, general	34,127	36,326	38,011	3,884	11%	Moderate-term on-the-job training		
47-4051	Highway maintenance workers	4,141	4,399	4,514	373	9%	Moderate-term on-the-job training		

Exhibit C-47
TENNESSEE- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
33-3051	Police and sheriff's patrol officers	12,842	13,585	13,903	1,061	8%	Long-term on- the-job training		
53-6041	Traffic technicians	660	695	703	43	7%	Short-term on- the-job training		
17-1022	Surveyors	955	1,012	1,000	45	5%	Bachelor's degree		
17-3029	Engineering technicians, except drafters, all other	531	546	557	26	5%	Associate's degree		
17-2072	Electronics engineers, except computer	1,093	1,117	1,140	47	4%	Bachelor's degree		
49-2093	Electrical and electronics installers and repairers, transportation equipment	398	410	415	17	4%	Postsecondary vocational award		
11-1021	General and operations managers	41,246	42,609	42,481	1,235	3%	Degree plus work experience		
11-9041	Engineering managers	2,931	2,987	3,010	79	3%	Degree plus work experience		
11-3071	Transportation, storage, and distribution managers	3,097	3,156	3,103	6	0%	Work experience in a related field		
17-2071	Electrical engineers	1,811	1,817	1,792	(19)	(1%)	Bachelor's degree		
17-3023	Electrical and electronic engineering technicians	1,920	1,915	1,905	(15)	(1%)	Associate's degree		
17-3011	Architectural and civil drafters	1,543	1,576	1,489	(54)	(3%)	Postsecondary vocational award		
43-2099	Communications equipment operators, all other	53	50	46	(7)	(13%)	Short-term on- the-job training		

Exhibit C-48
TEXAS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
15-1081	Network systems and data communications analysts	26,610	33,089	38,318	11,708	44%	Bachelor's degree		
13-1051	Cost estimators	16,311	19,688	22,318	6,007	37%	Work experience in a related field		
13-1061	Emergency management specialists	1,100	1,313	1,455	355	32%	Work experience in a related field		
43-5031	Dispatchers	7,283	8,585	9,511	2,228	31%	Moderate-term on-the-job training		
17-2051	Civil engineers	29,743	35,262	38,785	9,042	30%	Bachelor's degree		
11-9021	Construction managers	76,459	90,144	97,460	21,001	27%	Bachelor's degree		
15-2031	Operations research analysts	6,563	7,602	8,317	1,754	27%	Master's degree		
17-3022	Civil engineering technicians	12,184	14,223	15,433	3,249	27%	Associate's degree		
47-1011	First-line supervisors/managers of construction trades and extraction workers	113,415	133,099	143,388	29,973	26%	Work experience in a related field		
47-4011	Construction and building inspectors	8,424	9,840	10,638	2,214	26%	Work experience in a related field		
11-1011	Chief executives	112,051	130,975	140,275	28,224	25%	Degree plus work experience		
49-9097	Signal and track switch repairers	3,006	3,496	3,716	710	24%	Moderate-term on-the-job training		
33-3051	Police and sheriff's patrol officers	51,620	58,649	62,883	11,263	22%	Long-term on- the-job training		
47-2111	Electricians	54,012	61,554	65,981	11,969	22%	Long-term on- the-job training		
15-1011	Computer and information scientists, research	4,627	5,255	5,601	974	21%	Doctoral degree		

Exhibit C-48
TEXAS- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020									
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
47-4051	Highway maintenance workers	3,497	3,966	4,236	739	21%	Moderate-term on-the-job training			
11-3021	Computer and information systems managers	19,575	21,990	23,539	3,964	20%	Degree plus work experience			
17-1022	Surveyors	4,541	5,204	5,471	930	20%	Bachelor's degree			
53-6041	Traffic technicians	417	471	499	82	20%	Short-term on- the-job training			
11-3011	Administrative services managers	25,354	28,437	30,222	4,868	19%	Degree plus work experience			
49-9042	Maintenance and repair workers, general	106,383	118,304	126,398	20,015	19%	Moderate-term on-the-job training			
17-1012	Landscape architects	4,332	4,889	5,112	780	18%	Bachelor's degree			
17-3011	Architectural and civil drafters	10,491	11,891	12,372	1,881	18%	Postsecondary vocational award			
15-1099	Computer specialists, all other	11,724	12,994	13,755	2,031	17%	Associate's degree			
29-9011	Occupational health and safety specialists	5,727	6,272	6,557	830	14%	Bachelor's degree			
11-9041	Engineering managers	12,044	12,933	13,440	1,396	12%	Degree plus work experience			
49-2093	Electrical and electronics installers and repairers, transportation equipment	966	1,030	1,060	94	10%	Postsecondary vocational award			
17-3029	Engineering technicians, except drafters, all other	5,959	6,311	6,510	551	9%	Associate's degree			
11-1021	General and operations managers	172,162	183,856	185,660	13,498	8%	Degree plus work experience			
17-2071	Electrical engineers	13,082	13,648	13,932	850	6%	Bachelor's degree			

Exhibit C-48
TEXAS- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3071	Transportation, storage, and distribution managers	10,305	10,850	10,833	528	5%	Work experience in a related field
17-2072	Electronics engineers, except computer	12,143	12,299	12,464	321	3%	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	14,676	14,830	14,834	158	1%	Associate's degree
43-2099	Communications equipment operators, all other	85	85	81	(4)	(5%)	Short-term on- the-job training

Exhibit C-49
UTAH- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	2,904	3,696	4,402	1,498	52%	Bachelor's degree					
47-2111	Electricians	7,218	9,220	10,701	3,483	48%	Long-term on- the-job training					
15-2031	Operations research analysts	690	855	1,014	324	47%	Master's degree					
17-1022	Surveyors	940	1,201	1,383	443	47%	Bachelor's degree					
17-2051	Civil engineers	2,836	3,577	4,160	1,324	47%	Bachelor's degree					
13-1051	Cost estimators	2,255	2,847	3,280	1,025	45%	Work experience in a related field					
17-3011	Architectural and civil drafters	1,503	1,895	2,144	641	43%	Postsecondary vocational award					

Exhibit C-49 UTAH- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
11-3021	Computer and information systems managers	2,354	2,864	3,354	1,000	42%	Degree plus work experience					
17-3022	Civil engineering technicians	565	700	796	231	41%	Associate's degree					
13-1061	Emergency management specialists	185	225	253	68	37%	Work experience in a related field					
47-4011	Construction and building inspectors	1,009	1,234	1,383	374	37%	Work experience in a related field					
15-1011	Computer and information scientists, research	994	1,186	1,346	352	35%	Doctoral degree					
43-5031	Dispatchers	504	607	678	174	35%	Moderate-term on-the-job training					
47-1011	First-line supervisors/managers of construction trades and extraction workers	10,155	12,364	13,456	3,301	33%	Work experience in a related field					
11-9021	Construction managers	5,983	7,156	7,664	1,681	28%	Bachelor's degree					
11-9041	Engineering managers	1,412	1,637	1,801	389	28%	Degree plus work experience					
11-1011	Chief executives	13,686	16,133	17,316	3,630	27%	Degree plus work experience					
11-3011	Administrative services managers	1,574	1,821	1,998	424	27%	Degree plus work experience					
15-1099	Computer specialists, all other	2,295	2,634	2,915	620	27%	Associate's degree					
49-9042	Maintenance and repair workers, general	10,678	12,379	13,555	2,877	27%	Moderate-term on-the-job training					
17-1012	Landscape architects	491	574	621	130	26%	Bachelor's degree					
29-9011	Occupational health and safety specialists	453	522	570	117	26%	Bachelor's degree					

Exhibit C-49 UTAH- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
49-9097	Signal and track switch repairers	262	308	328	66	25%	Moderate-term on-the-job training				
33-3051	Police and sheriff's patrol officers	4,289	4,939	5,298	1,009	24%	Long-term on- the-job training				
47-4051	Highway maintenance workers	946	1,091	1,171	225	24%	Moderate-term on-the-job training				
17-2071	Electrical engineers	1,171	1,346	1,442	271	23%	Bachelor's degree				
53-6041	Traffic technicians	62	71	76	14	23%	Short-term on- the-job training				
17-3029	Engineering technicians, except drafters, all other	420	469	507	87	21%	Associate's degree				
11-1021	General and operations managers	25,072	27,855	29,135	4,063	16%	Degree plus work experience				
17-2072	Electronics engineers, except computer	1,183	1,293	1,372	189	16%	Bachelor's degree				
49-2093	Electrical and electronics installers and repairers, transportation equipment	69	75	79	10	14%	Postsecondary vocational award				
17-3023	Electrical and electronic engineering technicians	1,464	1,571	1,616	152	10%	Associate's degree				
11-3071	Transportation, storage, and distribution managers	918	985	1,003	85	9%	Work experience in a related field				
43-2099	Communications equipment operators, all other	26	27	27	1	4%	Short-term on- the-job training				

Exhibit C-50 VERMONT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
15-1081	Network systems and data communications analysts	603	720	829	226	37%	Bachelor's degree			
15-2031	Operations research analysts	63	72	78	15	24%	Master's degree			
49-9097	Signal and track switch repairers	92	104	110	18	20%	Moderate-term on-the-job training			
13-1051	Cost estimators	480	535	569	89	19%	Work experience in a related field			
13-1061	Emergency management specialists	51	57	60	9	18%	Work experience in a related field			
15-1011	Computer and information scientists, research	110	123	130	20	18%	Doctoral degree			
11-9021	Construction managers	2,639	2,989	3,090	451	17%	Bachelor's degree			
47-1011	First-line supervisors/managers of construction trades and extraction workers	3,088	3,471	3,596	508	16%	Work experience in a related field			
11-1011	Chief executives	3,058	3,367	3,509	451	15%	Degree plus work experience			
11-3021	Computer and information systems managers	439	477	507	68	15%	Degree plus work experience			
15-1099	Computer specialists, all other	243	263	275	32	13%	Associate's degree			
17-1012	Landscape architects	176	190	195	19	11%	Bachelor's degree			
29-9011	Occupational health and safety specialists	104	110	113	9	9%	Bachelor's degree			
43-5031	Dispatchers	247	262	268	21	9%	Moderate-term on-the-job training			
47-4011	Construction and building inspectors	283	302	307	24	8%	Work experience in a related field			

Exhibit C-50 VERMONT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
11-3011	Administrative services managers	304	316	322	18	6%	Degree plus work experience				
17-2051	Civil engineers	676	712	718	42	6%	Bachelor's degree				
49-9042	Maintenance and repair workers, general	3,035	3,102	3,166	131	4%	Moderate-term on-the-job training				
33-3051	Police and sheriff's patrol officers	1,269	1,293	1,280	11	1%	Long-term on- the-job training				
47-2111	Electricians	1,592	1,652	1,606	14	1%	Long-term on- the-job training				
47-4051	Highway maintenance workers	1,146	1,165	1,148	2	0%	Moderate-term on-the-job training				
49-2093	Electrical and electronics installers and repairers, transportation equipment	23	23	23	0	0%	Postsecondary vocational award				
17-3022	Civil engineering technicians	246	249	243	(3)	(1%)	Associate's degree				
17-1022	Surveyors	185	188	182	(3)	(2%)	Bachelor's degree				
17-3011	Architectural and civil drafters	246	249	238	(8)	(3%)	Postsecondary vocational award				
11-1021	General and operations managers	3,114	3,072	2,977	(137)	(4%)	Degree plus work experience				
11-3071	Transportation, storage, and distribution managers	185	181	175	(10)	(5%)	Work experience in a related field				
11-9041	Engineering managers	398	372	361	(37)	(9%)	Degree plus work experience				
17-3029	Engineering technicians, except drafters, all other	319	295	282	(37)	(12%)	Associate's degree				
17-2071	Electrical engineers	293	266	254	(39)	(13%)	Bachelor's degree				

	Exhibit C-50 VERMONT- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
17-2072	Electronics engineers, except computer	276	241	227	(49)	(18%)	Bachelor's degree					
17-3023	Electrical and electronic engineering technicians	134	113	102	(32)	(24%)	Associate's degree					
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training					
53-6041	Traffic technicians	<10	<10	<10			Short-term on-					

the-job training

	Exhibit C-51 VIRGINIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2020 Jobs	# of 2015 Jobs	# of 2020 jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	17,215	22,706	28,065	10,850	63%	Bachelor's degree					
15-2031	Operations research analysts	3,978	4,834	5,509	1,531	38%	Master's degree					
17-2051	Civil engineers	10,326	12,437	13,992	3,666	36%	Bachelor's degree					
11-3021	Computer and information systems managers	13,416	15,999	17,985	4,569	34%	Degree plus work experience					
13-1051	Cost estimators	7,101	8,321	9,194	2,093	29%	Work experience in a related field					
15-1011	Computer and information scientists, research	4,123	4,802	5,317	1,194	29%	Doctoral degree					
17-3022	Civil engineering technicians	2,931	3,439	3,768	837	29%	Associate's degree					

C-133 Appendix C

Exhibit C-51 VIRGINIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2020 Jobs	# of 2015 Jobs	# of 2020 jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
47-4011	Construction and building inspectors	3,853	4,500	4,924	1,071	28%	Work experience in a related field					
13-1061	Emergency management specialists	673	780	852	179	27%	Work experience in a related field					
11-9041	Engineering managers	5,454	6,249	6,829	1,375	25%	Degree plus work experience					
17-1022	Surveyors	2,185	2,538	2,723	538	25%	Bachelor's degree					
15-1099	Computer specialists, all other	11,473	13,001	14,223	2,750	24%	Associate's degree					
11-9021	Construction managers	20,059	23,278	24,733	4,674	23%	Bachelor's degree					
11-1011	Chief executives	29,565	34,046	36,113	6,548	22%	Degree plus work experience					
11-3011	Administrative services managers	5,897	6,678	7,203	1,306	22%	Degree plus work experience					
17-1012	Landscape architects	1,554	1,781	1,902	348	22%	Bachelor's degree					
17-3011	Architectural and civil drafters	2,655	3,039	3,209	554	21%	Postsecondary vocational award					
47-1011	First-line supervisors/managers of construction trades and extraction workers	30,374	34,622	36,621	6,247	21%	Work experience in a related field					
47-2111	Electricians	21,589	24,420	26,128	4,539	21%	Long-term on- the-job training					
43-5031	Dispatchers	2,732	3,054	3,245	513	19%	Moderate-term on-the-job training					
17-3029	Engineering technicians, except drafters, all other	2,714	2,976	3,197	483	18%	Associate's degree					
29-9011	Occupational health and safety specialists	2,141	2,343	2,495	354	17%	Bachelor's degree					

Exhibit C-51 VIRGINIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2020 Jobs	# of 2015 Jobs	# of 2020 jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level			
49-9097	Signal and track switch repairers	1,019	1,137	1,192	173	17%	Moderate-term on-the-job training			
17-2071	Electrical engineers	7,062	7,785	8,211	1,149	16%	Bachelor's degree			
17-2072	Electronics engineers, except computer	4,607	5,024	5,363	756	16%	Bachelor's degree			
49-9042	Maintenance and repair workers, general	37,054	40,410	42,711	5,657	15%	Moderate-term on-the-job training			
53-6041	Traffic technicians	154	166	172	18	12%	Short-term on- the-job training			
11-1021	General and operations managers	62,147	66,998	68,742	6,595	11%	Degree plus work experience			
17-3023	Electrical and electronic engineering technicians	5,833	6,175	6,375	542	9%	Associate's degree			
33-3051	Police and sheriff's patrol officers	17,501	18,684	19,100	1,599	9%	Long-term on- the-job training			
47-4051	Highway maintenance workers	3,321	3,539	3,626	305	9%	Moderate-term on-the-job training			
11-3071	Transportation, storage, and distribution managers	1,796	1,865	1,873	77	4%	Work experience in a related field			
49-2093	Electrical and electronics installers and repairers, transportation equipment	810	824	830	20	2%	Postsecondary vocational award			
43-2099	Communications equipment operators, all other	113	113	108	(5)	(4%)	Short-term on- the-job training			

Exhibit C-52 WASHINGTON- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020											
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level					
15-1081	Network systems and data communications analysts	12,343	15,154	17,774	5,431	44%	Bachelor's degree					
17-2051	Civil engineers	13,765	15,997	17,396	3,631	26%	Bachelor's degree					
15-1011	Computer and information scientists, research	2,882	3,302	3,580	698	24%	Doctoral degree					
15-2031	Operations research analysts	929	1,052	1,148	219	24%	Master's degree					
13-1061	Emergency management specialists	523	597	644	121	23%	Work experience in a related field					
11-1011	Chief executives	23,561	26,708	28,221	4,660	20%	Degree plus work experience					
11-3021	Computer and information systems managers	9,415	10,516	11,270	1,855	20%	Degree plus work experience					
49-9097	Signal and track switch repairers	633	713	752	119	19%	Moderate-term on-the-job training					
13-1051	Cost estimators	5,208	5,902	6,154	946	18%	Work experience in a related field					
17-1012	Landscape architects	2,032	2,262	2,371	339	17%	Bachelor's degree					
17-1022	Surveyors	1,085	1,224	1,272	187	17%	Bachelor's degree					
17-3022	Civil engineering technicians	2,386	2,667	2,802	416	17%	Associate's degree					
47-4011	Construction and building inspectors	3,244	3,622	3,799	555	17%	Work experience in a related field					
11-9021	Construction managers	14,160	16,114	16,437	2,277	16%	Bachelor's degree					
15-1099	Computer specialists, all other	9,229	10,132	10,729	1,500	16%	Associate's degree					
17-3011	Architectural and civil drafters	3,142	3,498	3,597	455	14%	Postsecondary vocational award					

Exhibit C-52 WASHINGTON- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020										
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level				
47-1011	First-line supervisors/managers of construction trades and extraction workers	20,988	23,673	23,978	2,990	14%	Work experience in a related field				
43-5031	Dispatchers	1,659	1,808	1,879	220	13%	Moderate-term on-the-job training				
29-9011	Occupational health and safety specialists	2,104	2,246	2,347	243	12%	Bachelor's degree				
47-2111	Electricians	16,167	17,907	18,117	1,950	12%	Long-term on- the-job training				
11-3011	Administrative services managers	4,313	4,634	4,795	482	11%	Degree plus work experience				
49-9042	Maintenance and repair workers, general	24,580	26,183	26,958	2,378	10%	Moderate-term on-the-job training				
11-9041	Engineering managers	4,893	5,093	5,221	328	7%	Degree plus work experience				
17-3029	Engineering technicians, except drafters, all other	3,302	3,431	3,539	237	7%	Associate's degree				
33-3051	Police and sheriff's patrol officers	8,746	9,198	9,257	511	6%	Long-term on- the-job training				
47-4051	Highway maintenance workers	3,069	3,220	3,227	158	5%	Moderate-term on-the-job training				
53-6041	Traffic technicians	164	173	173	9	5%	Short-term on- the-job training				
17-2071	Electrical engineers	3,717	3,835	3,875	158	4%	Bachelor's degree				
11-1021	General and operations managers	24,397	25,200	24,918	521	2%	Degree plus work experience				
17-3023	Electrical and electronic engineering technicians	2,897	2,902	2,872	(25)	(1%)	Associate's degree				

Exhibit C-52
WASHINGTON- Forecasted Renewal Systems - Expanded Occupations Summary
2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
49-2093	Electrical and electronics installers and repairers, transportation equipment	446	445	438	(8)	(2%)	Postsecondary vocational award
11-3071	Transportation, storage, and distribution managers	2,668	2,657	2,575	(93)	(3%)	Work experience in a related field
17-2072	Electronics engineers, except computer	4,383	4,253	4,139	(244)	(6%)	Bachelor's degree
43-2099	Communications equipment operators, all other	80	76	70	(10)	(13%)	Short-term on- the-job training

Exhibit C-53 WEST VIRGINIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	1,028	1,225	1,413	385	37%	Bachelor's degree
15-2031	Operations research analysts	71	80	86	15	21%	Master's degree
13-1051	Cost estimators	677	754	803	126	19%	Work experience in a related field
17-2051	Civil engineers	1,461	1,608	1,710	249	17%	Bachelor's degree
11-3021	Computer and information systems managers	711	774	823	112	16%	Degree plus work experience
15-1011	Computer and information scientists, research	129	140	148	19	15%	Doctoral degree

Exhibit C-53
WEST VIRGINIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020								
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level		
13-1061	Emergency management specialists	162	176	185	23	14%	Work experience in a related field		
17-1012	Landscape architects	179	195	203	24	13%	Bachelor's degree		
47-1011	First-line supervisors/managers of construction trades and extraction workers	5,869	6,428	6,611	742	13%	Work experience in a related field		
47-4011	Construction and building inspectors	475	517	539	64	13%	Work experience in a related field		
11-1011	Chief executives	6,959	7,536	7,763	804	12%	Degree plus work experience		
49-9097	Signal and track switch repairers	155	168	173	18	12%	Moderate-term on-the-job training		
15-1099	Computer specialists, all other	1,362	1,451	1,516	154	11%	Associate's degree		
17-3022	Civil engineering technicians	742	795	824	82	11%	Associate's degree		
11-9021	Construction managers	2,692	2,905	2,967	275	10%	Bachelor's degree		
17-1022	Surveyors	449	481	494	45	10%	Bachelor's degree		
43-5031	Dispatchers	826	881	909	83	10%	Moderate-term on-the-job training		
17-3011	Architectural and civil drafters	262	281	286	24	9%	Postsecondary vocational award		
17-3029	Engineering technicians, except drafters, all other	307	322	334	27	9%	Associate's degree		
17-2072	Electronics engineers, except computer	243	254	263	20	8%	Bachelor's degree		
47-2111	Electricians	5,455	5,747	5,879	424	8%	Long-term on- the-job training		

Exhibit C-53
WEST VIRGINIA- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

			710, 2015, an				
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
11-3011	Administrative services managers	1,266	1,328	1,357	91	7%	Degree plus work experience
29-9011	Occupational health and safety specialists	574	599	613	39	7%	Bachelor's degree
11-9041	Engineering managers	475	492	503	28	6%	Degree plus work experience
53-6041	Traffic technicians	17	18	18	1	6%	Short-term on- the-job training
33-3051	Police and sheriff's patrol officers	3,194	3,306	3,330	136	4%	Long-term on- the-job training
49-9042	Maintenance and repair workers, general	9,703	9,956	10,108	405	4%	Moderate-term on-the-job training
47-4051	Highway maintenance workers	464	477	477	13	3%	Moderate-term on-the-job training
17-2071	Electrical engineers	446	453	456	10	2%	Bachelor's degree
17-3023	Electrical and electronic engineering technicians	585	594	596	11	2%	Associate's degree
49-2093	Electrical and electronics installers and repairers, transportation equipment	65	66	66	1	2%	Postsecondary vocational award
11-1021	General and operations managers	8,845	8,961	8,772	(73)	(1%)	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	479	478	466	(13)	(3%)	Work experience in a related field
43-2099	Communications equipment operators, all other	31	29	28	(3)	(10%)	Short-term on- the-job training

Exhibit C-54
WISCONSIN- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-1081	Network systems and data communications analysts	7,713	9,190	10,439	2,726	35%	Bachelor's degree
13-1051	Cost estimators	5,141	5,783	6,342	1,201	23%	Work experience in a related field
15-2031	Operations research analysts	558	627	669	111	20%	Master's degree
11-9021	Construction managers	12,352	14,003	14,760	2,408	19%	Bachelor's degree
17-2051	Civil engineers	4,826	5,400	5,715	889	18%	Bachelor's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	14,278	16,030	16,877	2,599	18%	Work experience in a related field
15-1011	Computer and information scientists, research	638	713	749	111	17%	Doctoral degree
47-2111	Electricians	13,674	14,992	15,985	2,311	17%	Long-term on- the-job training
49-9097	Signal and track switch repairers	577	646	677	100	17%	Moderate-term on-the-job training
11-1011	Chief executives	19,426	21,569	22,430	3,004	15%	Degree plus work experience
13-1061	Emergency management specialists	307	334	348	41	13%	Work experience in a related field
15-1099	Computer specialists, all other	1,878	2,051	2,129	251	13%	Associate's degree
17-1012	Landscape architects	867	957	983	116	13%	Bachelor's degree
11-3021	Computer and information systems managers	5,734	6,165	6,395	661	12%	Degree plus work experience
47-4011	Construction and building inspectors	1,683	1,826	1,871	188	11%	Work experience in a related field

Exhibit C-54
WISCONSIN- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

	2010, 2015, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
17-1022	Surveyors	1,116	1,214	1,227	111	10%	Bachelor's degree	
17-3022	Civil engineering technicians	1,244	1,327	1,346	102	8%	Associate's degree	
11-3011	Administrative services managers	3,886	4,092	4,162	276	7%	Degree plus work experience	
43-5031	Dispatchers	1,487	1,563	1,591	104	7%	Moderate-term on-the-job training	
49-9042	Maintenance and repair workers, general	25,315	26,382	27,181	1,866	7%	Moderate-term on-the-job training	
29-9011	Occupational health and safety specialists	795	828	842	47	6%	Bachelor's degree	
17-3011	Architectural and civil drafters	1,351	1,429	1,410	59	4%	Postsecondary vocational award	
53-6041	Traffic technicians	39	41	40	1	3%	Short-term on- the-job training	
11-9041	Engineering managers	3,560	3,572	3,577	17	0%	Degree plus work experience	
17-3029	Engineering technicians, except drafters, all other	596	598	594	(2)	0%	Associate's degree	
47-4051	Highway maintenance workers	5,383	5,452	5,357	(26)	0%	Moderate-term on-the-job training	
49-2093	Electrical and electronics installers and repairers, transportation equipment	273	274	273	0	0%	Postsecondary vocational award	
11-1021	General and operations managers	27,188	27,258	26,534	(654)	(2%)	Degree plus work experience	
33-3051	Police and sheriff's patrol officers	12,178	12,246	11,981	(197)	(2%)	Long-term on- the-job training	
11-3071	Transportation, storage, and distribution managers	1,988	1,985	1,916	(72)	(4%)	Work experience in a related field	

	Exhibit C-54 WISCONSIN- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
17-2071	Electrical engineers	3,366	3,294	3,241	(125)	(4%)	Bachelor's degree	
17-2072	Electronics engineers, except computer	1,507	1,461	1,421	(86)	(6%)	Bachelor's degree	
17-3023	Electrical and electronic engineering technicians	2,893	2,788	2,709	(184)	(6%)	Associate's degree	
43-2099	Communications equipment operators, all other	47	44	40	(7)	(15%)	Short-term on- the-job training	

	Exhibit C-55 WYOMING- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level	
13-1051	Cost estimators	335	422	486	151	45%	Work experience in a related field	
47-2111	Electricians	2,995	3,697	4,187	1,192	40%	Long-term on- the-job training	
15-1081	Network systems and data communications analysts	393	469	534	141	36%	Bachelor's degree	
17-1022	Surveyors	355	428	459	104	29%	Bachelor's degree	
17-2051	Civil engineers	833	982	1,071	238	29%	Bachelor's degree	
17-3011	Architectural and civil drafters	204	242	258	54	26%	Postsecondary vocational award	
11-1011	Chief executives	2,787	3,250	3,477	690	25%	Degree plus work experience	

C-143 Appendix C

Exhibit C-55 WYOMING- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2015, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
15-2031	Operations research analysts	36	42	45	9	25%	Master's degree
17-3022	Civil engineering technicians	130	151	162	32	25%	Associate's degree
11-9021	Construction managers	1,762	2,044	2,185	423	24%	Bachelor's degree
47-1011	First-line supervisors/managers of construction trades and extraction workers	5,247	6,132	6,471	1,224	23%	Work experience in a related field
15-1011	Computer and information scientists, research	64	72	77	13	20%	Doctoral degree
13-1061	Emergency management specialists	67	76	80	13	19%	Work experience in a related field
17-1012	Landscape architects	127	143	151	24	19%	Bachelor's degree
17-2071	Electrical engineers	291	328	346	55	19%	Bachelor's degree
47-4011	Construction and building inspectors	237	270	283	46	19%	Work experience in a related field
11-3021	Computer and information systems managers	211	237	249	38	18%	Degree plus work experience
49-9042	Maintenance and repair workers, general	4,108	4,619	4,850	742	18%	Moderate-term on-the-job training
43-5031	Dispatchers	339	379	396	57	17%	Moderate-term on-the-job training
11-9041	Engineering managers	225	251	262	37	16%	Degree plus work experience
11-3011	Administrative services managers	265	293	302	37	14%	Degree plus work experience
17-2072	Electronics engineers, except computer	130	140	146	16	12%	Bachelor's degree

Exhibit C-55 WYOMING- Forecasted Renewal Systems - Expanded Occupations Summary 2010, 2015, and 2020

2010, 2013, and 2020							
SOC Code	DOL Standard Occupation Title	# of 2010 Jobs	# of 2015 Jobs	# of 2020 Jobs	Change (2010-2020)	% Change (2010- 2020)	Education Level
49-9097	Signal and track switch repairers	113	123	126	13	12%	Moderate-term on-the-job training
47-4051	Highway maintenance workers	320	347	351	31	10%	Moderate-term on-the-job training
15-1099	Computer specialists, all other	229	244	249	20	9%	Associate's degree
53-6041	Traffic technicians	11	11	12	1	9%	Short-term on- the-job training
33-3051	Police and sheriff's patrol officers	1,386	1,488	1,492	106	8%	Long-term on- the-job training
49-2093	Electrical and electronics installers and repairers, transportation equipment	84	89	90	6	7%	Postsecondary vocational award
11-1021	General and operations managers	5,641	6,018	5,977	336	6%	Degree plus work experience
11-3071	Transportation, storage, and distribution managers	177	188	188	11	6%	Work experience in a related field
17-3023	Electrical and electronic engineering technicians	182	193	193	11	6%	Associate's degree
17-3029	Engineering technicians, except drafters, all other	143	151	152	9	6%	Associate's degree
29-9011	Occupational health and safety specialists	308	328	325	17	6%	Bachelor's degree
43-2099	Communications equipment operators, all other	<10	<10	<10			Short-term on- the-job training

Appendix D

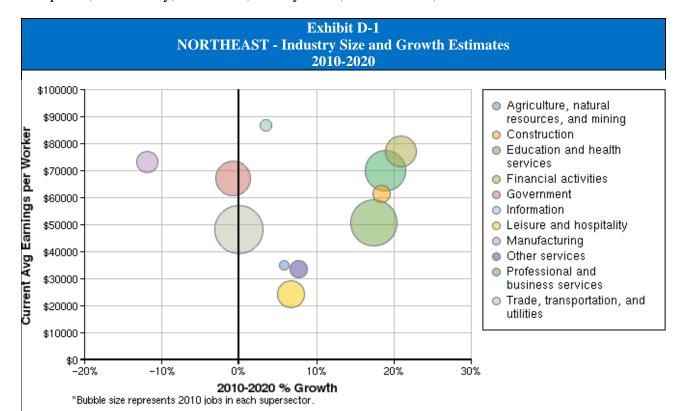
Region-level Industry Size and Growth Estimates: 2010–2020

This appendix first presents the industry size and growth estimates data for SOM positions in each of the United States' four regions, which include the Northeast, Midwest, West, and South. The following table provides an overview of the specific states represented in each regional area.

State	States Included in Each Regional Area Used to Conduct Occupational Analysis							
Regions	State Areas							
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont							
Midwest	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin							
West	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming							
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia							

Appendix D

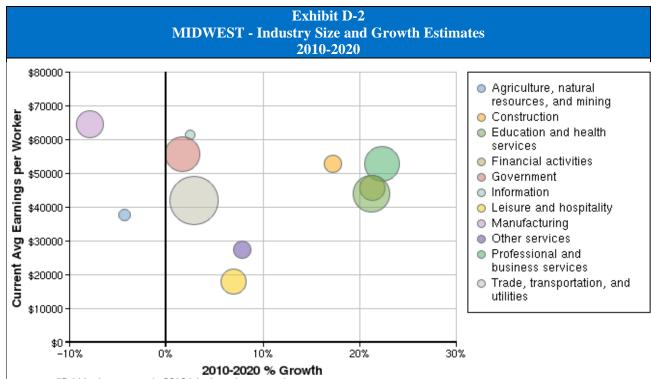
In the table below, Exhibit D-1, industry size and growth estimates are provided for the Northeast region. The Northeast region includes: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.



Description	2010 Jobs	2020 Jobs	Growth	% Growth	Current EPW
Agriculture, natural resources, and mining	327,215	346,431	19,216	6%	\$35,101
Construction	1,555,933	1,842,060	286,127	18%	\$61,327
Education and health services	5,513,101	6,471,975	958,874	17%	\$50,624
Financial activities	3,423,412	4,137,963	714,551	21%	\$77,018
Government	3,866,059	3,833,907	-32,152	-1%	\$66,970
Information	690,526	714,425	23,899	3%	\$86,648
Leisure and hospitality	2,743,415	2,926,583	183,168	7%	\$24,315
Manufacturing	2,042,314	1,799,760	-242,554	-12%	\$73,329
Other services	1,522,582	1,639,473	116,891	8%	\$33,618
Professional and business services	4,562,336	5,427,094	864,758	19%	\$70,116
Trade, transportation, and utilities	5,614,849	5,614,753	-96	0%	\$48,183

Source: EMSI Complete Employment—2nd Quarter 2010.

Exhibit D-2 provides industry size and growth estimates for the Midwest region. The Midwest region includes: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

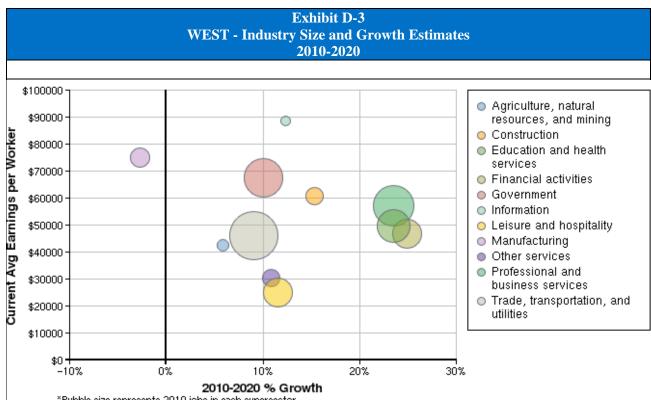


*Bubble size represents 2010 jobs in each supersector.

Description	2010 Jobs	2020 Jobs	Growth	% Growth	Current EPW
Agriculture, natural resources, and mining	1,081,696	1,035,394	-46,302	-4%	\$37,684
Construction	1,920,378	2,251,996	331,618	17%	\$52,865
Education and health services	5,405,747	6,550,357	1,144,610	21%	\$43,942
Financial activities	3,505,424	4,251,680	746,256	21%	\$45,811
Government	4,918,859	4,999,498	80,639	2%	\$55,673
Information	623,012	638,344	15,332	2%	\$61,376
Leisure and hospitality	3,296,659	3,526,506	229,847	7%	\$18,032
Manufacturing	3,819,818	3,519,136	-300,682	-8%	\$64,536
Other services	1,927,698	2,079,921	152,223	8%	\$27,560
Professional and business services	4,930,777	6,029,274	1,098,497	22%	\$52,958
Trade, transportation, and utilities	7,215,850	7,426,144	210,294	3%	\$42,130

Source: EMSI Complete Employment—2nd Quarter 2010.

Exhibit D-3 provides industry size and growth estimates for the West region. The West region includes: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

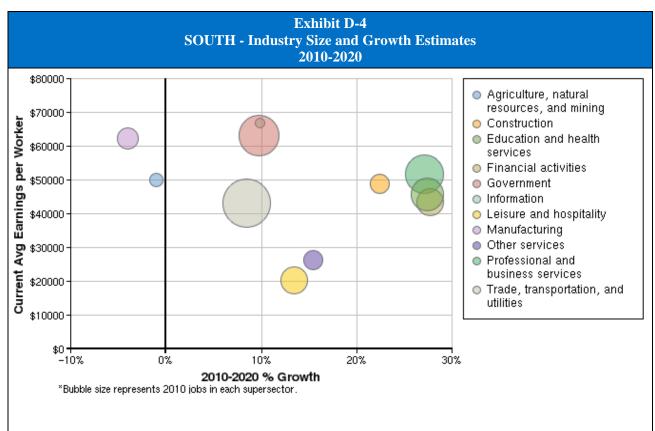


*Bubble size represents 2010 jobs in each supersector.

Description	2010 Jobs	2020 Jobs	Growth	% Growth	Current EPW
Agriculture, natural resources, and mining	1,164,318	1,232,530	68,212	6%	\$42,472
Construction	2,093,635	2,413,952	320,317	15%	\$60,614
Education and health services	4,580,864	5,660,012	1,079,148	24%	\$49,564
Financial activities	4,016,719	5,016,759	1,000,040	25%	\$46,782
Government	5,543,321	6,098,687	555,366	10%	\$67,465
Information	931,520	1,046,951	115,431	12%	\$88,475
Leisure and hospitality	3,938,507	4,392,756	454,249	12%	\$24,932
Manufacturing	2,478,124	2,411,114	-67,010	-3%	\$75,110
Other services	2,166,553	2,402,228	235,675	11%	\$30,497
Professional and business services	5,857,394	7,233,191	1,375,797	23%	\$57,143
Trade, transportation, and utilities	6,827,037	7,445,597	618,560	9%	\$46,131

Source: EMSI Complete Employment—2nd Quarter 2010.

Exhibit D-4 provides the industry size and growth estimates for the South region. The South region includes: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.



Description	2010 Jobs	2020 Jobs	Growth	% Growth	Current EPW
Agriculture, natural resources, and mining	1,958,340	1,939,228	-19,112	-1%	\$50,088
Construction	3,873,719	4,740,675	866,956	22%	\$48,915
Education and health services	7,487,579	9,542,571	2,054,992	27%	\$45,575
Financial activities	5,703,937	7,285,471	1,581,534	28%	\$43,420
Government	9,419,649	10,333,436	913,787	10%	\$63,112
Information	1,050,956	1,154,278	103,322	10%	\$66,932
Leisure and hospitality	5,603,696	6,359,566	755,870	13%	\$20,406
Manufacturing	4,178,145	4,009,678	-168,467	-4%	\$62,411
Other services	3,570,914	4,120,826	549,912	15%	\$26,382
Professional and business services	8,836,921	11,235,576	2,398,655	27%	\$51,717
Trade, transportation, and utilities	11,322,120	12,283,882	961,762	8%	\$43,112

Source: EMSI Complete Employment—2nd Quarter 2010.