

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	19-1012	Food scientists and technologists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	45-1011	First-line supervisors/managers of farming, fishing, and forestry workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	45-2011	Agricultural inspectors		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	45-2041	Graders and sorters, agricultural products		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	51-3021	Butchers and meat cutters		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	51-3022	Meat, poultry, and fish cutters and trimmers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	51-3023	Slaughterers and meat packers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	51-3091	Food and tobacco roasting, baking, and drying machine operators and tenders		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	51-3092	Food batchmakers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway	51-3093	Food cooking machine operators and tenders		
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			010105	Agricultural/Farm Supplies Retailing and Wholesaling
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			010106	Agricultural Business Technology
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			010199	Agricultural Business and Management, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			010401	Agricultural and Food Products Processing
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			011001	Food Science
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			011002	Food Technology and Processing
1.0000	Agriculture, Food and Natural Resource Cluster	1.10000	Food Products and Processing Systems Pathway			011099	Food Science and Technology, Other

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	11-9011	Farm, ranch, and other agricultural managers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	11-9012	Farmers and ranchers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	19-1013	Soil and plant Scientists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	19-1020	Biological scientists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	19-1021	Biochemists and biophysicists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	19-1032	Foresters		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	25-1041	Agricultural sciences teachers, postsecondary		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	25-9021	Farm and home management advisors		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	37-1012	First-line supervisors/managers of landscaping, lawn service, and groundskeeping workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	37-3012	Pesticide handlers, sprayers, and applicators, vegetation		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	37-3013	Tree trimmers and pruners		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	45-2092	Farmworkers and laborers, crop, nursery, and greenhouse		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway	49-3041	Farm equipment mechanics		
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010000	Agriculture, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010101	Agricultural Business and Management, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010102	Agribusiness/Agricultural Business Operations

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010103	Agricultural Economics
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010104	Farm/Farm and Ranch Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010301	Agricultural Production Operations, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010303	Aquaculture
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010304	Crop Production
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010399	Agricultural Production Operations, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010601	Applied Horticulture/Horticultural Operations, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010603	Ornamental Horticulture
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010604	Greenhouse Operations and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010605	Landscaping and Groundskeeping
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010606	Plant Nursery Operations and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010607	Turf and Turfgrass Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010608	Floriculture/Floristry Operations and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			010699	Applied Horticulture/Horticultural Business Services, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011101	Plant Sciences, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011102	Agronomy and Crop Science
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011103	Horticultural Science
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011104	Agricultural and Horticultural Plant Breeding

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011105	Plant Protection and Integrated Pest Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011106	Range Science and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011199	Plant Sciences, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011201	Soil Science and Agronomy, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011202	Soil Chemistry and Physics
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011203	Soil Microbiology
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			011299	Soil Sciences, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.20000	Plant Systems Pathway			019999	Agriculture, Agriculture Operations, & Related Sciences, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	19-1011	Animal scientists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	19-1023	Zoologists and wildlife biologists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	29-1131	Veterinarians		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	29-2056	Veterinary technologists and technicians		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	31-9096	Veterinary assistants and laboratory animal caretakers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	39-2021	Nonfarm animal caretakers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	41-1011	First-line supervisors/managers of retail sales workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	45-2021	Animal breeders		
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway	45-2093	Farmworkers, farm and ranch animals		

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010302	Animal/Livestock Husbandry and Production
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010306	Dairy Husbandry and Production
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010307	Horse Husbandry/Equine Science and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010504	Dog/Pet/Animal Grooming
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010505	Animal Training
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010507	Equestrian/Equine Studies
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010508	Taxidermy/Taxidermist
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010599	Agricultural and Domestic Animal Services, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010901	Animal Sciences, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010902	Agricultural Animal Breeding
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010903	Animal Health
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010904	Animal Nutrition
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010905	Dairy Science
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010906	Livestock Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010907	Poultry Science
1.0000	Agriculture, Food and Natural Resource Cluster	1.30000	Animal Systems Pathway			010999	Animal Sciences, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.40000	Power Structural and Technical Systems Pathway	41-2022	Parts salespersons		
1.0000	Agriculture, Food and Natural Resource Cluster	1.40000	Power Structural and Technical Systems Pathway	45-2091	Agricultural equipment operators		

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.40000	Power Structural and Technical Systems Pathway			010201	Agricultural Mechanization, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.40000	Power Structural and Technical Systems Pathway			010204	Agricultural Power Machinery Operation
1.0000	Agriculture, Food and Natural Resource Cluster	1.40000	Power Structural and Technical Systems Pathway			010205	Agricultural Mechanics & Equipment/Machine Technology
1.0000	Agriculture, Food and Natural Resource Cluster	1.40000	Power Structural and Technical Systems Pathway			010299	Agricultural Mechanization, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	11-9121	Natural sciences managers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	17-1021	Cartographers and photogrammetrists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	19-4041	Geological and petroleum technicians		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	19-4093	Forest and conservation technicians		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	33-3031	Fish and game wardens		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	45-3011	Fishers and related fishing workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	45-4011	Forest and conservation workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	45-3021	Hunters and trappers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	45-4021	Fallers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	45-4022	Logging equipment operators		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	45-4023	Log graders and scalers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5011	Derrick operators, oil and gas		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5012	Rotary drill operators, oil and gas		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5013	Service unit operators, oil, gas, and mining		

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5031	Explosives workers, ordnance handling experts, and blasters		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5041	Continuous mining machine operators		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5042	Mine cutting and channeling machine operators		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5051	Rock splitters, quarry		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5061	Roof bolters, mining		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5071	Roustabouts, oil and gas		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	47-5081	Helpers—Extraction workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	49-9092	Commercial divers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	51-7041	Sawing machine setters, operators, and tenders, wood		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	51-8092	Gas plant operators		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	51-8093	Petroleum pump system operators, refinery operators, and gaugers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	53-7033	Loading machine operators, underground mining		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	53-7071	Gas compressor and gas pumping station operators		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	53-7072	Pump operators, except wellhead pumpers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	53-7073	Wellhead pumpers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway	53-7111	Shuttle car operators		
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030101	Natural Resources/Conservation, General

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Code	Title	Code	Title	Code	Title	Code	Title
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030103	Environmental Studies
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030104	Environmental Science
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030199	Natural Resources Conservation and Research, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030201	Natural Resources Management and Policy
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030204	Natural Resource Economics
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030205	Water, Wetlands, and Marine Resources Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030206	Land Use Planning and Management/Development
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030299	Natural Resources Management and Policy, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030301	Fishing and Fisheries Sciences and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030501	Forestry, General
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030502	Forest Sciences and Biology
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030506	Forest Management/Forest Resources Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030508	Urban Forestry
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030509	Wood Science and Wood Products/Pulp and Paper Technology
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030510	Forest Resources Production and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030511	Forest Technology/Technician
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030599	Forestry, Other

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1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			030601	Wildlife and Wildlands Science and Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			039999	Natural Resources and Conservation, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			150901	Mining Technology/Technician
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			150903	Petroleum Technology/Technician
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			150999	Mining and Petroleum Technologies/Technicians, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			310101	Parks, Recreation and Leisure Studies
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			310301	Parks, Recreation and Leisure Facilities Management
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			319999	Parks, Recreation, Leisure and Fitness Studies, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			490303	Commercial Fishing
1.0000	Agriculture, Food and Natural Resource Cluster	1.50000	Natural Resources Systems Pathway			490304	Diver, Professional and Instructor
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	17-2081	Environmental engineers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	17-3025	Environmental engineering technicians		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	19-4091	Environmental science and protection technicians, including health		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	29-9011	Occupational health and safety specialists		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	29-9012	Occupational health and safety technicians		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service System Pathway	37-2021	Pest control workers		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	51-8031	Water and liquid waste treatment plant and system operators		

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1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway	53-7081	Refuse and recyclable material collectors		
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway			150506	Water Quality & Wastewater Treatment Management & Recycling Technology/Technician
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway			150507	Environmental Engineering Technology/Environmental Technology
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway			150508	Hazardous Materials Management & Waste Technology/Technician
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway			150599	Environmental Control Technologies/Technicians, Other
1.0000	Agriculture, Food and Natural Resource Cluster	1.60000	Environmental Service Systems Pathway			150704	Hazardous Materials Information Systems Technology/Technician
1.0000	Agriculture, Food and Natural Resource Cluster	1.70000	Agribusiness Systems Pathway	13-1021	Purchasing agents and buyers, farm products		
1.0000	Agriculture, Food and Natural Resource Cluster	1.70000	Agribusiness Systems Pathway	45-1012	Farm labor contractors		
1.0000	Agriculture, Food and Natural Resource Cluster	1.70000	Agribusiness Systems Pathway			010701	International Agriculture
1.0000	Agriculture, Food and Natural Resource Cluster	1.70000	Agribusiness Systems Pathway			010801	Agricultural and Extension Education Services
1.0000	Agriculture, Food and Natural Resource Cluster	1.70000	Agribusiness Systems Pathway			010802	Agricultural Communication/Journalism
1.0000	Agriculture, Food and Natural Resource Cluster	1.70000	Agribusiness Systems Pathway			010899	Agricultural Public Services, Other
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	17-1011	Architects, except landscape and naval		
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	17-1012	Landscape architects		
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	17-1022	Surveyors		
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	17-2051	Civil engineers		

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2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	17-3013	Mechanical drafters		
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	17-3022	Civil engineering technicians		
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway	27-1025	Interior designers		
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			040201	Architecture (BArch, BA/BS, MArch, MA/MS, PhD)
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			040401	Environmental Design/Architecture
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			040501	Interior Architecture
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			040601	Landscape Architecture (BS, BSLA, BLA, MSLA, MLA, PhD)
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			040801	Architectural History and Criticism, General
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			040901	Architectural Technology/Technician
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			049999	Architecture and Related Services, Other
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			143801	Surveying Engineering
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			150101	Architectural Engineering Technology/Technician
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			150201	Civil Engineering Technology/Technician
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151102	Surveying Technology/Surveying
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151301	Drafting and Design Technology/Technician, General
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151302	CAD/CADD Drafting and/or Design Technology/Technician
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151303	Architectural Drafting and Architectural CAD/CADD

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151304	Civil Drafting and Civil Engineering CAD/CADD
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151305	Electrical/Electronics Drafting & Electrical/Electronics CAD/CADD
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151306	Mechanical Drafting and Mechanical Drafting CAD/CADD
2.0000	Architecture and Construction Cluster	2.10000	Design/Pre-Construction Pathway			151399	Drafting/Design Engineering Technologies/Technicians, Other
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	11-9021	Construction managers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	13-1051	Cost estimators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-1011	First-line supervisors/managers of construction trades and extraction workers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2021	Brickmasons and blockmasons		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2022	Stonemasons		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2031	Carpenters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2041	Carpet installers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2042	Floor layers, except carpet, wood, and hard tiles		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2043	Floor sanders and finishers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2044	Tile and marble setters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2051	Cement masons and concrete finishers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2053	Terrazzo workers and finishers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2061	Construction laborers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2071	Paving, surfacing, and tamping equipment operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2072	Pile-driver operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2073	Operating engineers and other construction equipment operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2081	Drywall and ceiling tile installers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2082	Tapers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2111	Electricians		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2121	Glaziers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2131	Insulation workers, floor, ceiling, and wall		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2132	Insulation workers, mechanical		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2141	Painters, construction and maintenance		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2142	Paperhangers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2151	Pipelayers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2152	Plumbers, pipefitters, and steamfitters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2161	Plasterers and stucco masons		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2171	Reinforcing iron and rebar workers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2181	Roofers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2211	Sheet metal workers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-2221	Structural iron and steel workers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-3011	Helpers—Brickmasons, blockmasons, stonemasons, and tile and marble setters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-3012	Helpers—Carpenters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-3013	Helpers—Electricians		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-3014	Helpers—Painters, paperhangers, plasterers, and stucco masons		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-3015	Helpers—Pipelayers, plumbers, pipefitters, and steamfitters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-3016	Helpers—Roofers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-4011	Construction and building inspectors		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-4021	Elevator installers and repairers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-4031	Fence erectors		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-4041	Hazardous materials removal workers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-4071	Septic tank servicers and sewer pipe cleaners		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-4091	Segmental pavers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	47-5021	Earth drillers, except oil and gas		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	49-2095	Electrical and electronics repairers, powerhouse, substation, and relay		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	49-9045	Refractory materials repairers, except brickmasons		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	49-9051	Electrical power-line installers and repairers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	49-9095	Manufactured building and mobile home installers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	49-9096	Riggers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	49-9098	Helpers--Installation, maintenance, and repair workers		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	51-2041	Structural metal fabricators and fitters		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	53-7011	Conveyor operators and tenders		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	53-7021	Crane and tower operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	53-7031	Dredge operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	53-7032	Excavating and loading machine and dragline operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway	53-7041	Hoist and winch operators		
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			150501	Heating, Air Conditioning & Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			150503	Energy Management and Systems Technology/Technician
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			150505	Solar Energy Technology/Technician
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			151001	Construction Engineering Technology/Technician
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460000	Construction Trades, General

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460101	Mason/Masonry
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460201	Carpentry/Carpenter
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460301	Electrical & Power Transmission Installation/Installer, General
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460302	Electrician
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460303	Lineworker
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460399	Electrical and Power Transmission Installers, Other
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460401	Building/Property Maintenance and Management
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460402	Concrete Finishing/Concrete Finisher
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460403	Building/Home/Construction Inspection/Inspector
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460404	Drywall Installation/Drywaller
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460406	Glazier
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460408	Painting/Painter and Wall Coverer
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460410	Roofer
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460411	Metal Building Assembly/Assembler
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460412	Building/Construction Site Management/Manager
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460499	Building/Construction Finishing, Management, & Inspection, Other
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460502	Pipefitting/Pipefitter and Sprinkler Fitter

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460503	Plumbing Technology/Plumber
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460504	Well Drilling/Driller
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460505	Blasting/Blaster
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			460599	Plumbing and Related Water Supply Services, Other
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			469999	Construction Trades, Other
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			480509	Ironworking/Ironworker
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			480599	Precision Metal Working, Other
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			480801	Boilermaking/Boilermaker
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			490202	Construction/Heavy Equipment/Earthmoving Equipment Operation
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			490206	Mobil Crane Operation/Operator
2.0000	Architecture and Construction Cluster	2.20000	Construction Pathway			522001	Construction Management
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	37-3011	Landscaping and groundskeeping workers		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	47-4051	Highway maintenance workers		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	47-4099	Construction and related workers, all other		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	49-9011	Mechanical door repairers		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	49-9012	Control and valve installers and repairers, except mechanical door		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	49-9021	Heating, air conditioning, and refrigeration mechanics and installers		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	49-9031	Home appliance repairers		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway	51-8021	Stationary engineers and boiler operators		
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway			470110	Security System Installation, Repair, & Inspection Technology/Technician
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway			470199	Electrical/Electronics Maintenance & Repair Technology, Other
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway			470201	Heating, Air Conditioning, Ventilation & Refrigeration Maintenance Technology/Technician
2.0000	Architecture and Construction Cluster	2.30000	Maintenance/Operations Pathway			470302	Heavy Equipment Maintenance Technology/Technician
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway	27-1024	Graphic designers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway	27-4011	Audio and video equipment technicians		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway	27-4014	Sound engineering technicians		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway	49-9061	Camera and photographic equipment repairers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			100299	Audiovisual Communications Technologies/Technicians, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			110803	Computer Graphics
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			301401	Museology/Museum Studies
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500401	Design and Visual Communications, General

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500605	Photography
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500699	Film/Video and Photographic Arts, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500701	Art/Art Studies, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500702	Fine/Studio Arts, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500703	Art History, Criticism and Conservation
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500704	Arts Management
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500705	Drawing
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500706	Intermedia/Multimedia
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500708	Painting
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500709	Sculpture
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500710	Printmaking
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500711	Ceramic Arts and Ceramics
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500712	Fiber, Textile and Weaving Arts
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500713	Metal and Jewelry Arts
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.10000	Audio and Video Technology and Film Pathway			500799	Fine Arts and Art Studies, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway	43-9031	Desktop publishers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway	51-5011	Bindery workers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway	51-5012	Bookbinders		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway	51-5021	Job printers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway	51-5022	Prepress technicians and workers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway	51-5023	Printing machine operators		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100301	Graphic Communications, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100302	Printing Management
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100303	Prepress/Desktop Publishing and Digital Imaging Design
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway		move 100304 to visual arts pathway	100304	Animation, Interactive Technology, Video Graphics & Special Effects
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100305	Graphic and Printing Equipment Operator, General Production
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100306	Platemaker/Imager
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100307	Printing Press Operator
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100308	Computer Typography and Composition Equipment Operator
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.20000	Printing Technology Pathway			100399	Graphic Communications, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway	27-1012	Craft artists		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway	27-1013	Fine artists, including painters, sculptors, and illustrators		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway	27-1014	Multi-media artists and animators		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway	27-1021	Commercial and industrial designers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway	27-4021	Photographers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			100201	Photographic and Film/Video Technology/Technician & Assistant
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500101	Visual and Performing Arts, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway		edited, moved from Printing Pathway, August 2008 VT DOE	100304	Animation, Interactive Technology, Video Graphics & Special Effects
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500201	Crafts/Craft Design, Folk Art and Artisanry
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500402	Commercial and Advertising Art
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500404	Industrial Design
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500406	Commercial Photography
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500407	Fashion/Apparel Design
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500408	Interior Design
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500409	Graphic Design
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500410	Illustration
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500499	Design and Applied Arts, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500605	Photography
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.30000	Visual Arts Pathway			500699	Film/Video and Photographic Arts, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	25-1121	Art, drama, and music teachers, postsecondary		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-2011	Actors		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-2012	Producers and directors		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-2031	Dancers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-2032	Choreographers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-2041	Music directors and composers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-2099	Entertainers and performers, sports and related workers, all other		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-3012	Public address system and other announcers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-3043	Writers and authors		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-4031	Camera operators, television, video, and motion picture		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	27-4032	Film and video editors		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway	39-5091	Makeup artists, theatrical and performance		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500301	Dance, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500302	Ballet
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500399	Dance, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500501	Drama and Dramatics/Theatre Arts, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500502	Technical Theatre/Theatre Design and Technology
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500504	Playwriting and Screenwriting
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500505	Theatre Literature, History and Criticism
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500506	Acting

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500507	Directing and Theatrical Production
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500508	Theatre/Theatre Arts Management
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500599	Dramatic/Theatre Arts and Stagecraft, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500601	Film/Cinema Studies
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500602	Cinematography and Film/Video Production
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500901	Music, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500902	Music History, Literature, and Theory
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500903	Music Performance, General
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500904	Music Theory and Composition
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500905	Musicology and Ethnomusicology
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500906	Conducting
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500907	Piano and Organ
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500908	Voice and Opera
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500909	Music Management and Merchandising
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500910	Jazz/Jazz Studies
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500911	Violin, Viola, Guitar and Other Stringed Instruments
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500912	Music Pedagogy
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			500999	Music, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.40000	Performing Arts Pathway			509999	Visual and Performing Arts, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway	27-3011	Radio and television announcers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway	27-3021	Broadcast news analysts		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway	27-3022	Reporters and correspondents		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway	27-3041	Editors		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway	27-4012	Broadcast technicians		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway	27-4013	Radio operators		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090101	Communication Studies/Speech Communication and Rhetoric
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090102	Mass Communication/Media Studies
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090199	Communication and Media Studies, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090401	Journalism
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090402	Broadcast Journalism
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090404	Photojournalism
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090499	Journalism, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090701	Radio and Television
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090702	Digital Communication and Media/Multimedia
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			090799	Radio, Television, and Digital Communication, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			091001	Publishing

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			099999	Communication, Journalism, and Related Programs, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			100202	Radio and Television Broadcasting Technology/Technician
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			100203	Recording Arts Technology/Technician
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			230401	English Composition
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			230501	Creative Writing
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.50000	Journalism and Broadcasting Pathway			231101	Technical and Business Writing
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.60000	Telecommunications Pathway	49-9052	Telecommunications line installers and repairers		
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.60000	Telecommunications Pathway			100105	Communications Technology/Technician
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.60000	Telecommunications Pathway			109999	Communications Technologies/Technicians & Support Services, Other
3.0000	Arts, Audio/Video Technology and Communications Cluster	3.60000	Telecommunications Pathway			470103	Communications Systems Installation and Repair Technology
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	11-1021	General and operations managers		
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	11-2031	Public relations managers		
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	11-3011	Administrative services managers		
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	11-3061	Purchasing managers		
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	11-9111	Medical and health services managers		
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	11-9199	Managers, all other		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway	13-1011	Agents and business managers of artists, performers, and athletes		
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			090901	Organizational Communication, General
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			090902	Public Relations/Image Management
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520101	Business/Commerce, General
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520201	Business Administration and Management, General
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520202	Purchasing, Procurement/Acquisitions & Contracts Management
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520203	Logistics and Materials Management
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520204	Office Management and Supervision
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520205	Operations Management and Supervision
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520207	Customer Service Management
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520601	Business/Managerial Economics
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520701	Entrepreneurship/Entrepreneurial Studies
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520702	Franchising and Franchise Operations
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520703	Small Business Administration/Management
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			520799	Entrepreneurial and Small Business Operations, Other
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			521101	International Business/Trade/Commerce
4.0000	Business, Management and Administration Cluster	4.10000	Management Pathway			521301	Management Science, General

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway	11-1011	Chief executives		
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway	11-3031	Financial managers		
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway	13-2011	Accountants and auditors		
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway	43-3031	Bookkeeping, accounting, and auditing clerks		
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway	43-3051	Payroll and timekeeping clerks		
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			301601	Accounting and Computer Science
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520299	Business Administration, Management and Operations, Other
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520301	Accounting
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520302	Accounting Technology/Technician and Bookkeeping
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520303	Auditing
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520304	Accounting and Finance
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520305	Accounting and Business/Management
4.0000	Business, Management and Administration Cluster	4.20000	Business Financial Management and Accounting Pathway			520399	Accounting and Related Services, Other
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	11-3040	Human resources managers		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	11-3041	Compensation and benefits managers		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	11-3042	Training and development managers		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	11-3049	Human resources managers, all other		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	13-1072	Compensation, benefits, and job analysis specialists		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	13-1073	Training and development specialists		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	13-1079	Human resources, training, and labor relations specialists, all other		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway	43-4161	Human resources assistants, except payroll and timekeeping		
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway			521001	Human Resources Management/Personnel Administration, General
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway			521002	Labor and Industrial Relations
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway			521003	Organizational Behavior Studies
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway			521004	Labor Studies
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway			521005	Human Resources Development
4.0000	Business, Management and Administration Cluster	4.30000	Human Resources Pathway			521099	Human Resources Management and Services, Other
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway	13-1111	Management analysts		
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway	13-2031	Budget analysts		
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway	15-2031	Operations research analysts		
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway			143701	Operations Research
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway			521201	Management Information Systems, General
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway			521206	Information Resources Management/CIO Training
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway			521207	Knowledge Management

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway			521299	Management Information Systems and Services, Other
4.0000	Business, Management and Administration Cluster	4.40000	Business Analysis Pathway			521399	Management Sciences and Quantitative Methods, Other
4.0000	Business, Management and Administration Cluster	4.50000	Marketing	11-2011	Advertising and promotions managers		
4.0000	Business, Management and Administration Cluster	4.50000	Marketing	11-2021	Marketing managers		
4.0000	Business, Management and Administration Cluster	4.50000	Marketing	11-2022	Sales managers		
4.0000	Business, Management and Administration Cluster	4.50000	Marketing	27-1011	Art directors		
4.0000	Business, Management and Administration Cluster	4.50000	Marketing	41-3011	Advertising sales agents		
4.0000	Business, Management and Administration Cluster	4.50000	Marketing	53-3031	Driver/sales workers		
4.0000	Business, Management and Administration Cluster	4.50000	Marketing			090999	Public Relations, Advertising & Applied Communication, Other
4.0000	Business, Management and Administration Cluster	4.50000	Marketing			520501	Business/Corporate Communications
4.0000	Business, Management and Administration Cluster	4.50000	Marketing			90903	Advertising
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	23-2091	Court reporters		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	27-3031	Public relations specialists		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-1011	First-line supervisors/managers of office and administrative support workers		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-2000	Communications equipment operators		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-2021	Telephone operators		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-4021	Correspondence clerks		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-4071	File clerks		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-4121	Library assistants, clerical		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-4141	New accounts clerks		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-4171	Receptionists and information clerks		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-5021	Couriers and messengers		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-5081	Stock clerks and order fillers		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-6011	Executive secretaries and administrative assistants		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-6012	Legal secretaries		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-6013	Medical secretaries		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-6014	Secretaries, except legal, medical, and executive		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-9011	Computer operators		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-9021	Data entry keyers		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-9022	Word processors and typists		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-9051	Mail clerks and mail machine operators, except postal service		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway	43-9199	Office and administrative support workers, all other		
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			110601	Data Entry/Microcomputer Applications, General
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			110602	Word Processing
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			110699	Data Entry/Microcomputer Applications, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520401	Administrative Assistant and Secretarial Science, General
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520402	Executive Assistant/Executive Secretary
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520406	Receptionist
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520407	Business/Office Automation/Technology/Data Entry
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520408	General Office Occupations and Clerical Services
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520411	Customer Service Support/Call Center/Teleservice Operation
4.0000	Business, Management and Administration Cluster	4.60000	Administrative and Information Support Pathway			520499	Business Operations Support and Secretarial Services, Other
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway	11-9031	Education administrators, preschool and child care center/program		
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway	11-9032	Education administrators, elementary and secondary school		
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway	11-9033	Education administrators, postsecondary		
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway	25-9031	Instructional coordinators		
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130401	Educational Leadership and Administration, General
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130402	Administration of Special Education
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130403	Adult and Continuing Education Administration
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130404	Educational, Instructional, and Curriculum Supervision
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130406	Higher Education/Higher Education Administration
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130407	Community College Education

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130408	Elementary & Middle School Administration/Principalship
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130409	Secondary School Administration/Principalship
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130410	Urban Education and Leadership
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130411	Superintendency and Educational System Administration
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130499	Educational Administration and Supervision, Other
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130501	Educational/Instructional Media Design
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130601	Educational Evaluation and Research
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130603	Educational Statistics and Research Methods
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130604	Educational Assessment, Testing, and Measurement
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130699	Educational Assessment, Evaluation, and Research, Other
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130701	International and Comparative Education
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			130901	Social and Philosophical Foundations of Education
5.0000	Education and Training Cluster	5.10000	Administrative and Information Support Pathway			310504	Sport and Fitness Administration/Management
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway	19-3031	Clinical, counseling, and school psychologists		
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway	21-1012	Educational, vocational, and school counselors		
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway	25-4021	Librarians		
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway	25-4031	Library technicians		
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway	25-9011	Audio-visual collections specialists		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway			131101	Counselor Education/School Counseling and Guidance Services
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway			131102	College Student Counseling and Personnel Services
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway			131199	Student Counseling and Personnel Services, Other
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway			250101	Library Science/Librarianship
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway			250301	Library Assistant
5.0000	Education and Training Cluster	5.20000	Professional Support Services Pathway			259999	Library Science, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1000	Postsecondary teachers		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1011	Business teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1021	Computer science teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1022	Mathematical science teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1031	Architecture teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1032	Engineering teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1042	Biological science teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1043	Forestry and conservation science teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1051	Atmospheric, earth, marine, and space sciences teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1052	Chemistry teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1053	Environmental science teachers, postsecondary		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1054	Physics teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1061	Anthropology and archeology teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1062	Area, ethnic, and cultural studies teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1063	Economics teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1064	Geography teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1065	Political science teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1066	Psychology teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1067	Sociology teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1071	Health specialties teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1072	Nursing instructors and teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1081	Education teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1082	Library science teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1112	Law teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1113	Social work teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1122	Communications teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1123	English language and literature teachers, postsecondary		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1124	Foreign language and literature teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1125	History teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1126	Philosophy and religion teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1191	Graduate teaching assistants		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1192	Home economics teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-1193	Recreation and fitness studies teachers, postsecondary		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2011	Preschool teachers, except special education		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2012	Kindergarten teachers, except special education		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2021	Elementary school teachers, except special education		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2022	Middle school teachers, except special and vocational education		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2023	Vocational education teachers, middle school		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2031	Secondary school teachers, except special and vocational education		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2032	Vocational education teachers, secondary school		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2041	Special education teachers, preschool, kindergarten, and elementary school		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2042	Special education teachers, middle school		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-2043	Special education teachers, secondary school		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-3011	Adult literacy, remedial education, and GED teachers and instructors		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-3099	Teachers and instructors, all other		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-4011	Archivists		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-4012	Curators		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	25-9041	Teacher assistants		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway	27-2022	Coaches and scouts		
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			130101	Education, General
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			130201	Bilingual and Multilingual Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			130202	Multicultural Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			130203	Indian/Native American Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			130299	Bilingual, Multilingual, a&Multicultural Education, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			130301	Curriculum and Instruction
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131001	Special Education and Teaching, General
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131003	Education/Teaching of Individuals with Hearing Impairments, Including Deafness
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131004	Education/Teaching of the Gifted and Talented
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131005	Education/Teaching of Individuals with Emotional Disturbances
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131006	Education/Teaching of Individuals with Mental Retardation
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131007	Education/Teaching of Individuals with Multiple Disabilities

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131008	Education/Teaching of Individuals with Orthopedic and Other Physical Health Impairments
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131009	Education/Teaching of Individuals with Vision Impairments, Including Blindness
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131011	Education/Teaching of Individuals with Specific Learning Disabilities
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131012	Education/Teaching of Individuals with Speech or Language Impairments
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131013	Education/Teaching of Individuals with Autism
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131014	Education/Teaching of Individuals Who are Developmentally Delayed
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131015	Education/Teaching of Individuals in Early Childhood Special Education Programs
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131016	Education/Teaching of Individuals with Traumatic Brain Injuries
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131099	Special Education and Teaching, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131201	Adult and Continuing Education and Teaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131202	Elementary Education and Teaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131203	Junior High/Intermediate/Middle School Education & Teaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131205	Secondary Education and Teaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131206	Teacher Education, Multiple Levels

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131207	Montessori Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131208	Waldorf/Steiner Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131209	Kindergarten/Preschool Education and Teaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131210	Early Childhood Education and Teaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131299	Teacher Education & Professional Development, Specific Levels & Methods, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131301	Agricultural Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131302	Art Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131303	Business Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131304	Driver and Safety Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131305	English/Language Arts Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131306	Foreign Language Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131307	Health Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131308	Family & Consumer Sciences/Home Economics Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131309	Technology Teacher Education/Industrial Arts Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131310	Sales & Marketing Operations/Marketing & Distribution Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131311	Mathematics Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131312	Music Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131314	Physical Education Teaching and Coaching
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131315	Reading Teacher Education

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131316	Science Teacher Education/General Science Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131317	Social Science Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131318	Social Studies Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131319	Technical Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131320	Trade and Industrial Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131321	Computer Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131322	Biology Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131323	Chemistry Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131324	Drama and Dance Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131325	French Language Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131326	German Language Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131327	Health Occupations Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131328	History Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131329	Physics Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131330	Spanish Language Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131331	Speech Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131332	Geography Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131333	Latin Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131334	School Librarian/School Library Media Specialist
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131335	Psychology Teacher Education
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131399	Teacher Education & Professional Development, Specific Subject Areas, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131401	Teaching English as a Second or Foreign Language/ESL Language Instructor

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131402	Teaching French as a Second or Foreign Language
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131499	Teaching English or French as a Second or Foreign Language, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131501	Teacher Assistant/Aide
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131502	Adult Literacy Tutor/Instructor
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			131599	Teaching Assistants/Aides, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			139999	Education, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			190601	Housing and Human Environments, General
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			190699	Housing and Human Environments, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			230101	English Language and Literature, General
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			230701	American Literature United States
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			230702	American Literature Canadian
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			230801	English Literature British and Commonwealth
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			231001	Speech and Rhetorical Studies
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			239999	English Language and Literature/Letters, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			240101	Liberal Arts and Sciences/Liberal Studies
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			240102	General Studies
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			240103	Humanities/Humanistic Studies
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			240199	Liberal Arts and Sciences, General Studies and Humanities, Other
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			302301	Intercultural/Multicultural and Diversity Studies
5.0000	Education and Training Cluster	5.30000	Teaching/Training Pathway			310501	Health and Physical Education, General

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway	13-2052	Personal financial advisors		
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway	13-2082	Tax preparers		
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway	41-3031	Securities, commodities, and financial services sales agents		
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway	43-4011	Brokerage clerks		
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520801	Finance, General
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520804	Financial Planning and Services
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520806	International Finance
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520807	Investments and Securities
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520808	Public Finance
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520809	Credit Management
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			520899	Finance and Financial Management Services, Other
6.0000	Finance Cluster	6.10000	Financial and Investment Planning Pathway			521908	Business & Personal/Financial Services Marketing Operations
6.0000	Finance Cluster	6.20000	Business Financial Management Pathway	13-2051	Financial analysts		
6.0000	Finance Cluster	6.20000	Business Financial Management Pathway			521601	Taxation
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	13-2041	Credit analysts		
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	13-2072	Loan officers		
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	23-2093	Title examiners, abstractors, and searchers		
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	43-3011	Bill and account collectors		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	43-3071	Tellers		
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	43-4041	Credit authorizers, checkers, and clerks		
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway	43-4131	Loan interviewers and clerks		
6.0000	Finance Cluster	6.30000	Banking and Related Services Pathway			520803	Banking and Financial Support Services
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	13-1031	Claims adjusters, examiners, and investigators		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	13-1032	Insurance appraisers, auto damage		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	13-2053	Insurance underwriters		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	15-2011	Actuaries		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	41-3021	Insurance sales agents		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	43-9041	Insurance claims and policy processing clerks		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	43-9071	Office machine operators, except computer		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway	43-9081	Proofreaders and copy markers		
6.0000	Finance Cluster	6.40000	Insurance Services Pathway			521701	Insurance
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway	11-1031	Legislators		
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway			090904	Political Communication
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway			440401	Public Administration
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway			440501	Public Policy Analysis
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway			451001	Political Science and Government, General
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway			451002	American Government and Politics (United States)
7.0000	Government and Public Administration Cluster	7.10000	Governance Pathway			451099	Political Science and Government, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
7.0000	Government and Public Administration Cluster	7.20000	National Security Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
7.0000	Government and Public Administration Cluster	7.20000	National Security Pathway			280101	Air Force JROTC/ROTC
7.0000	Government and Public Administration Cluster	7.20000	National Security Pathway			280301	Army JROTC/ORTC
7.0000	Government and Public Administration Cluster	7.20000	National Security Pathway			280401	Navy/Marine Corps JROTC/ROTC
7.0000	Government and Public Administration Cluster	7.20000	National Security Pathway			290101	Military Technologies
7.0000	Government and Public Administration Cluster	7.3000	Foreign Service Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
7.0000	Government and Public Administration Cluster	7.3000	Foreign Service Pathway			450901	International Relations and Affairs
7.0000	Government and Public Administration Cluster	7.40000	Planning Pathway	19-3011	Economists		
7.0000	Government and Public Administration Cluster	7.40000	Planning Pathway	19-3051	Urban and regional planners		
7.0000	Government and Public Administration Cluster	7.40000	Planning Pathway	43-4111	Interviewers, except eligibility and loan		
7.0000	Government and Public Administration Cluster	7.40000	Planning Pathway	43-9111	Statistical assistants		
7.0000	Government and Public Administration Cluster	7.40000	Planning Pathway			040301	City/Urban, Community and Regional Planning
7.0000	Government and Public Administration Cluster	7.40000	Planning Pathway			451201	Urban Studies/Affairs
7.0000	Government and Public Administration Cluster	7.50000	Revenue and Taxation Pathway	13-2021	Appraisers and assessors of real estate		
7.0000	Government and Public Administration Cluster	7.50000	Revenue and Taxation Pathway				
7.0000	Government and Public Administration Cluster	7.50000	Revenue and Taxation Pathway	13-2081	Tax examiners, collectors, and revenue agents		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway			Sorted by Pathway, then SOC and CIP				
September 2007 Version / Subject to Revision after Initial Use			CIP-SOC not directly linked				
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
7.0000	Government and Public Administration Cluster	7.50000	Revenue and Taxation Pathway				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
7.0000	Government and Public Administration Cluster	7.60000	Regulation Pathway	13-1041	Compliance officers, except agriculture, construction, health and safety, and transportation		
7.0000	Government and Public Administration Cluster	7.60000	Regulation Pathway	13-2061	Financial examiners		
7.0000	Government and Public Administration Cluster	7.60000	Regulation Pathway	33-3021	Detectives and criminal investigators		
7.0000	Government and Public Administration Cluster	7.60000	Regulation Pathway	43-5041	Meter readers, utilities		
7.0000	Government and Public Administration Cluster	7.60000	Regulation Pathway	53-6051	Transportation inspectors		
7.0000	Government and Public Administration Cluster	7.60000	Regulation Pathway				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway	11-9131	Postmasters and Mail Superintendents		
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway	43-4031	Court, municipal, and license clerks		
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway	43-4061	Eligibility interviewers, government programs		
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway	43-5051	Postal service clerks		
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway	43-5052	Postal service mail carriers		
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway	43-5053	Postal service mail sorters, processors, and processing machine operators		
7.0000	Government and Public Administration Cluster	7.70000	Public Management and Administration Pathway			520206	Non-Profit/Public/Organizational Management
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	19-3030	Psychologists		

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Code
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1011	Chiropractors	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1021	Dentists, general	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1022	Oral and maxillofacial surgeons	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1023	Orthodontists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1024	Prosthodontists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1031	Dietitians and nutritionists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1041	Optometrists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1051	Pharmacists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1061	Anesthesiologists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1062	Family and general practitioners	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1063	Internists, general	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1064	Obstetricians and gynecologists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1065	Pediatricians, general	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1066	Psychiatrists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1067	Surgeons	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1071	Physician assistants	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1081	Podiatrists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1111	Registered nurses	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1121	Audiologists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1122	Occupational therapists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1123	Physical therapists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1124	Radiation therapists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1125	Recreational therapists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1126	Respiratory therapists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1127	Speech-language pathologists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-1199	Health diagnosing and treating practitioners, all other	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2021	Dental hygienists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2051	Dietetic technicians	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2052	Pharmacy technicians	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2053	Psychiatric technicians	

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2054	Respiratory therapy technicians	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2055	Surgical technologists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2061	Licensed practical and licensed vocational nurses	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2081	Opticians, dispensing	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-2091	Orthotists and prosthetists	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	29-9091	Athletic trainers	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-1011	Home health aides	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-1012	Nursing aides, orderlies, and attendants	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-1013	Psychiatric aides	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-2011	Occupational therapist assistants	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-2012	Occupational therapist aides	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-2021	Physical therapist assistants	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-2022	Physical therapist aides	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-9091	Dental assistants	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-9092	Medical assistants	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	31-9095	Pharmacy aides	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	51-9081	Dental laboratory technicians	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway	51-9083	Ophthalmic laboratory technicians	
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			420101 Psychology, General
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			420201 Clinical Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			420301 Cognitive Psychology and Psycholinguistics
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			420501 Comparative Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			420801 Experimental Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			420901 Industrial and Organizational Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			421001 Personality Psychology

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			421101	Physiological Psychology/Psychobiology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			421601	Social Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			421701	School Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			421801	Educational Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			421901	Psychometrics and Quantitative Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422001	Clinical Child Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422101	Environmental Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422201	Geropsychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422301	Health/Medical Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422401	Psychopharmacology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422501	Family Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			422601	Forensic Psychology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			429999	Psychology, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510101	Chiropractic (DC)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510201	Communication Disorders, General
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510202	Audiology/Audiologist and Hearing Sciences
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510203	Speech-Language Pathology/Pathologist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510204	Audiology/Audiologist & Speech-Language Pathology/Pathologist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510299	Communication Disorders Sciences and Services, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510401	Dentistry (DDS, DMD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510501	Dental Clinical Sciences, General (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510502	Advanced General Dentistry (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510503	Oral Biology and Oral Pathology (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510504	Dental Public Health & Education (Cert, MS/MPH, PhD/DPH)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510505	Dental Materials (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510506	Endodontics/Endodontology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510507	Oral/Maxillofacial Surgery (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510508	Orthodontics/Orthodontology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510509	Pediatric Dentistry/Pedodontics (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510510	Periodontics/Periodontology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510511	Prosthodontics/Prosthodontology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510599	Advanced/Graduate Dentistry and Oral Sciences, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510601	Dental Assisting/Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510602	Dental Hygiene/Hygienist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510603	Dental Laboratory Technology/Technician
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510699	Dental Services and Allied Professions, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510801	Medical/Clinical Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510803	Occupational Therapist Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510805	Pharmacy Technician/Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510806	Physical Therapist Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510808	Veterinary/Animal Health Technology/Technician & Veterinary Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510809	Anesthesiologist Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510810	Emergency Care Attendant (EMT Ambulance)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510908	Respiratory Care Therapy/Therapist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510909	Surgical Technology/Technologist

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			510999	Allied Health Diagnostic, Intervention, & Treatment Professions, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511001	Blood Bank Technology Specialist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511011	Renal/Dialysis Technologist/Technician
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511201	Medicine (MD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511502	Psychiatric/Mental Health Services Technician
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511601	Nursing - Registered Nurse Training (RN, ASN, BSN, MSN)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511602	Nursing Administration (MSN, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511603	Adult Health Nurse/Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511604	Nurse Anesthetist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511605	Family Practice Nurse/Nurse Practitioner
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511606	Maternal/Child Health and Neonatal Nurse/Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511607	Nurse Midwife/Nursing Midwifery
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511608	Nursing Science (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511609	Pediatric Nurse/Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511610	Psychiatric/Mental Health Nurse/Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511611	Public Health/Community Nurse/Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511612	Perioperative/Operating Room and Surgical Nurse/Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511613	Licensed Practical /Vocational Nurse Training (LPN, LVN, Cert, Dipl, AAS)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511614	Nurse/Nursing Assistant/Aide and Patient Care Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511616	Clinical Nurse Specialist

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511617	Critical Care Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511618	Occupational and Environmental Health Nursing
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511699	Nursing, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511701	Optometry (OD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511801	Opticianry/Ophthalmic Dispensing Optician
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511802	Optometric Technician/Assistant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511803	Ophthalmic Technician/Technologist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511804	Orthoptics/Orthoptist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511899	Ophthalmic & Optometric Support Services & Allied Professions, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			511901	Osteopathic Medicine/Osteopathy (DO)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512001	Pharmacy (PharmD [USA] PharmD, BS/BPharm [Canada])
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512002	Pharmacy Administration & Pharmacy Policy & Regulatory Affairs (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512003	Pharmaceutics and Drug Design (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512008	Clinical, Hospital, & Managed Care Pharmacy (MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512101	Podiatric Medicine/Podiatry (DPM)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512301	Art Therapy/Therapist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512302	Dance Therapy/Therapist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512305	Music Therapy/Therapist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512401	Veterinary Medicine (DVM)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512501	Veterinary Sciences/Veterinary Clinical Sciences, General (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512502	Veterinary Anatomy (Cert, MS, PhD)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512503	Veterinary Physiology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512504	Veterinary Microbiology & Immunobiology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512505	Veterinary Pathology & Pathobiology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512506	Veterinary Toxicology & Pharmacology (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512507	Large Animal/Food Animal & Equine Surgery & Medicine (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512508	Small/Companion Animal Surgery & Medicine (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512509	Comparative & Laboratory Animal Medicine (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512510	Veterinary Preventive Medicine Epidemiology & Public Health (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512511	Veterinary Infectious Diseases (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512599	Veterinary Biomedical & Clinical Sciences, Other (Cert, MS, PhD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512601	Health Aide
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512602	Home Health Aide/Home Attendant
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512603	Medication Aide
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			512699	Health Aides/Attendants/Orderlies, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513101	Dietetics/Dietitian (RD)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513102	Clinical Nutrition/Nutritionist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513103	Dietetic Technician (DTR)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513104	Dietitian Assistant

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513199	Dietetics and Clinical Nutrition Services, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513301	Acupuncture
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513302	Traditional Chinese/Asian Medicine & Chinese Herbology
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513303	Naturopathic Medicine/Naturopathy (ND)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513304	Homeopathic Medicine/Homeopathy
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513305	Ayurvedic Medicine/Ayurveda
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513399	Alternative & Complementary Medicine & Medical Systems, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513401	Direct Entry Midwifery (LM, CPM)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513499	Alternative & Complementary Medical Support Services, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513501	Massage Therapy/Therapeutic Massage
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513502	Asian Bodywork Therapy
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513503	Somatic Bodywork
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513599	Somatic Bodywork & Related Therapeutic Services, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513601	Movement Therapy and Movement Education
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513602	Yoga Teacher Training/Yoga Therapy
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513603	Hypnotherapy/Hypnotherapist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513699	Movement & Mind-Body Therapies & Education, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513701	Aromatherapy
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513702	Herbalism/Herbalist
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513703	Polarity Therapy
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513704	Reiki
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			513799	Energy and Biologically Based Therapies, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			519999	Health Professions and Related Clinical Sciences, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600101	Dental/Oral Surgery Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600102	Dental Public Health Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600103	Endodontics Speciality - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600104	Oral Pathology Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600105	Orthodontics Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600106	Pedodontics Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600107	Periodontics Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600108	Prosthodontics Specialty - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600199	Dental Residency Program, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600201	Aerospace Medicine – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600202	Allergies and Immunology – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600203	Anesthesiology – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600204	Blood Banking - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600205	Cardiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600206	Chemical Pathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600207	Child/Pediatric Neurology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600208	Child Psychiatry - (Residency Program)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600209	Colon and Rectal Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600210	Critical Care Anesthesiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600211	Critical Care Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600212	Critical Care Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600213	Dermatology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600214	Dermatopathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600215	Diagnostic Radiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600216	Emergency Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600217	Endocrinology and Metabolism - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600218	Family Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600219	Forensic Pathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600220	Gastroenterology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600221	General Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600222	Geriatric Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600223	Hand Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600224	Hematology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600225	Hematological Pathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600226	Immunopathology - (Residency Program)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600227	Infectious Disease - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600228	Internal Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600229	Laboratory Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600230	Musculoskeletal Oncology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600231	Neonatal-Perinatal Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600232	Nephrology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600233	Neurological Surgery/Neurosurgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600234	Neurology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600235	Neuropathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600236	Nuclear Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600237	Nuclear Radiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600238	Obstetrics and Gynecology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600239	Occupational Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600240	Oncology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600241	Ophthalmology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600242	Orthopedics/Orthopedic Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600243	Otolaryngology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600244	Pathology - (Residency Program)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600245	Pediatric Cardiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600246	Pediatric Endocrinology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600247	Pediatric Hemato-Oncology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600248	Pediatric Nephrology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600249	Pediatric Orthopedics - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600250	Pediatrics Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600251	Pediatrics - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600252	Physical and Rehabilitation Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600253	Plastic Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600254	Preventive Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600255	Psychiatry - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600256	Public Health Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600257	Pulmonary Disease - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600258	Radiation Oncology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600259	Radioisotopic Pathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600260	Rheumatology – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600261	Sports Medicine – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600262	Thoracic Surgery - (Residency Program)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600263	Urology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600264	Vascular Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600265	Adult Reconstructive Orthopedics (Orthopedic Surgery) -- (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600266	Child Neurology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600267	Cytopathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600268	Geriatric Medicine (Internal Medicine) (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600269	Pediatric Urology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600270	Physical Medical and Rehabilitation/Psychiatry - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600271	Orthopedic Surgery of the Spine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600299	Medical Residency Programs, Other
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600301	Veterinary Anesthesiology – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600302	Veterinary Dentistry - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600303	Veterinary Dermatology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600304	Veterinary Emergency and Critical Care Medicine - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600305	Veterinary Internal Medicine – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600306	Laboratory Animal Medicine - (Residency Program)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600307	Veterinary Microbiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600308	Veterinary Nutrition - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600309	Veterinary Ophthalmology – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600310	Veterinary Pathology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600311	Veterinary Practice - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600312	Veterinary Preventive Medicine – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600313	Veterinary Radiology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600314	Veterinary Surgery - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600315	Theriogenology – (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600316	Veterinary Toxicology - (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600317	Zoological Medicine- (Residency Program)
8.0000	Health Science Cluster	8.10000	Therapeutic Services Pathway			600399	Veterinary Residency Programs, Other
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-1069	Physicians and surgeons, all other		
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-2011	Medical and clinical laboratory technologists		
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-2012	Medical and clinical laboratory technicians		
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-2031	Cardiovascular technologists and technicians		
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-2032	Diagnostic medical sonographers		
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-2033	Nuclear medicine technologists		

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Code Title
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	29-2034	Radiologic technologists and technicians	
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway	31-9099	Healthcare support workers, all other	
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			410101 Biology Technician/Biotechnology Laboratory Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510802 Clinical/Medical Laboratory Assistant
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510811 Pathology/Pathologist Assistant
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510812 Respiratory Therapy Technician/Assistant
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510813 Chiropractic Assistant/Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510899 Allied Health and Medical Assisting Services, Other
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510901 Cardiovascular Technology/Technologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510902 Electrocardiograph Technology/Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510903 Electroneurodiagnostic/Electroencephalographic Technology/Technologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510904 Emergency Medical Technology/Technician (EMT Paramedic)
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510905 Nuclear Medical Technology/Technologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510906 Perfusion Technology/Perfusionist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510907 Medical Radiologic Technology/Science - Radiation Therapist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510910 Diagnostic Medical Sonography/Sonographer & Ultrasound Technician

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510911	Radiologic Technology/Science - Radiographer
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510912	Physician Assistant
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510913	Athletic Training/Trainer
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510914	Gene/Genetic Therapy
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510915	Cardiopulmonary Technology/Technologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			510916	Radiation Protection/Health Physics Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511002	Cytotechnology/Cytotechnologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511003	Hematology Technology/Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511004	Clinical/Medical Laboratory Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511005	Clinical Laboratory Science/Medical Technology/Technologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511006	Ophthalmic Laboratory Technology/Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511007	Histologic Technology/Histotechnologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511008	Histologic Technician
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511009	Phlebotomy/Phlebotomist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511010	Cytogenetics/Genetics/Clinical Genetics Technology/Technologist
8.0000	Health Science Cluster	8.20000	Diagnostic Services Pathway			511099	Clinical/Medical Laboratory Science & Allied Professions, Other
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway	19-1041	Epidemiologists		
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway	21-1020	Social workers		
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway	21-1091	Health educators		
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway	29-2071	Medical records and health information technicians		
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway	31-9094	Medical transcriptionists		
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			090905	Health Communication

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510701	Health/Health Care Administration/Management
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510702	Hospital & Health Care Facilities Administration/Management
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510703	Health Unit Coordinator/Ward Clerk
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510704	Health Unit Manager/Ward Supervisor
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510705	Medical Office Management/Administration
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510706	Health Information/Medical Records Administration/Administrator
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510707	Health Information/Medical Records Technology/Technician
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510708	Medical Transcription/Transcriptionist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510709	Medical Office Computer Specialist/Assistant
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510710	Medical Office Assistant/Specialist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510711	Medical/Health Management & Clinical Assistant/Specialist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510712	Medical Reception/Receptionist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510713	Medical Insurance Coding Specialist/Coder
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510714	Medical Insurance Specialist/Medical Biller
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510715	Health/Medical Claims Examiner
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510716	Medical Administrative/Executive Assistant & Medical Secretary
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510717	Medical Staff Services Technology/Technician
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			510799	Health and Medical Administrative Services, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			511503	Clinical/Medical Social Work
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			511509	Genetic Counseling/Counselor
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512201	Public Health, General (MPH, DPH)
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512202	Environmental Health
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512205	Health/Medical Physics
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512206	Occupational Health and Industrial Hygiene
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512207	Public Health Education and Promotion
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512208	Community Health and Preventive Medicine
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512209	Maternal and Child Health
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512210	International Public Health/International Health
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512211	Health Services Administration
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512299	Public Health, Other
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512306	Occupational Therapy/Therapist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512307	Orthotist/Prosthetist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512308	Physical Therapy/Therapist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512309	Therapeutic Recreation/Recreational Therapy
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512310	Vocational Rehabilitation Counseling/Counselor
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512311	Kinesiotherapy/Kinesiotherapist
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512312	Assistive/Augmentative Technology & Rehabilitation Engineering
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512399	Rehabilitation and Therapeutic Professions, Other
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512703	Medical Illustration/Medical Illustrator
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512706	Medical Informatics
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			512799	Medical Illustration and Informatics, Other
8.0000	Health Science Cluster	8.30000	Health Informatics Pathway			513201	Bioethics/Medical Ethics

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Code
8.0000	Health Science Cluster	8.40000	Support Services Pathway	21-1023	Mental health and substance abuse social workers	
8.0000	Health Science Cluster	8.40000	Support Services Pathway			190501
8.0000	Health Science Cluster	8.40000	Support Services Pathway			190504
8.0000	Health Science Cluster	8.40000	Support Services Pathway			190505
8.0000	Health Science Cluster	8.40000	Support Services Pathway			190599
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development	15-2090	Miscellaneous mathematical science occupations	
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development	17-2031	Biomedical engineers	
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development	19-1042	Medical scientists, except epidemiologists	
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development	31-9093	Medical equipment preparers	
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			261201
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			512004
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			512005
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			512006
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			512007
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			512009
8.0000	Health Science Cluster	8.50000	Biotechnology Research and Development			512099
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	11-9051	Food service managers	

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-1011	Chefs and head cooks		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-1012	First-line supervisors/managers of food preparation and serving workers		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-2011	Cooks, fast food		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-2012	Cooks, institution and cafeteria		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-2013	Cooks, private household		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-2014	Cooks, restaurant		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-2015	Cooks, short order		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-2021	Food preparation workers		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-3011	Bartenders		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-3021	Combined food preparation and serving workers, including fast food		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-3022	Counter attendants, cafeteria, food concession, and coffee shop		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-3031	Waiters and waitresses		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-3041	Food servers, nonrestaurant		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-9011	Dining room and cafeteria attendants and bartender helpers		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-9021	Dishwashers		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	35-9099	Food preparation and serving related workers, all other		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	51-3011	Bakers		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	51-3020	Butchers and other meat, poultry, and fish processing workers		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway	51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders		
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120500	Cooking and Related Culinary Arts, General
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120501	Baking and Pastry Arts/Baker/Pastry Chef
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120502	Bartending/Bartender
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120503	Culinary Arts/Chef Training
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120504	Restaurant, Culinary, and Catering Management/Manager
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120505	Food Preparation/Professional Cooking/Kitchen Assistant
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120506	Meat Cutting/Meat Cutter
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120507	Food Service, Waiter/Waitress, & Dining Room Management/Manager
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120508	Institutional Food Workers
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			120599	Culinary Arts and Related Services, Other
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			129999	Personal and Culinary Services, Other
9.0000	Hospitality and Tourism Cluster	9.10000	Restaurants and Food/Beverage Services Pathway			520905	Restaurant/Food Services Management

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	11-9081	Lodging managers		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	37-1011	First-line supervisors/managers of housekeeping and janitorial workers		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	37-2011	Janitors and cleaners, except maids and housekeeping cleaners		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	37-2012	Maids and housekeeping cleaners		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	39-3031	Ushers, lobby attendants, and ticket takers		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	39-6011	Baggage porters and bellhops		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	39-6012	Concierges		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	43-2011	Switchboard operators, including answering service		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway	43-4081	Hotel, motel, and resort desk clerks		
9.0000	Hospitality and Tourism Cluster	9.20000	Lodging Pathway			520904	Hotel/Motel Administration/Management
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	13-1121	Meeting and convention planners		
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	27-3091	Interpreters and translators		
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	39-6021	Tour guides and escorts		
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	39-6022	Travel guides		
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	39-6032	Transportation attendants, except flight attendants and baggage porters		
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	41-3041	Travel agents		
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway	43-4181	Reservation and transportation ticket agents and travel clerks		

Primary Occupations and Instructional Programs by Clusters/Pathways							
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September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway			520901	Hospitality Administration/Management, General
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway			520903	Tourism and Travel Services Management
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway			520999	Hospitality Administration/Management, Other
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway			521905	Tourism and Travel Services Marketing Operations
9.0000	Hospitality and Tourism Cluster	9.30000	Travel and Tourism Pathway			521906	Tourism Promotion Operations
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	11-9071	Gaming managers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	25-3021	Self-enrichment education teachers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	25-4013	Museum Technicians and Conservators		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	27-1027	Set and exhibit designers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	27-2021	Athletes and sports competitors		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	27-2023	Umpires, referees, and other sports officials		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-1011	Gaming supervisors		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-1012	Slot key persons		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-2011	Animal trainers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-3011	Gaming dealers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-3012	Gaming and sports book writers and runners		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-3021	Motion picture projectionists		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-3091	Amusement and recreation attendants		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	39-9032	Recreation workers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway	43-3041	Gaming cage workers		
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway			190604	Facilities Planning and Management
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway			520906	Resort Management
9.0000	Hospitality and Tourism Cluster	9.40000	Recreation, Amusements and Attractions Pathway			521910	Hospitality and Recreation Marketing Operations
10.0000	Human Services Cluster	10.10000	Early Childhood Development and Services Pathway	39-9011	Child care workers		
10.0000	Human Services Cluster	10.10000	Early Childhood Development and Services Pathway			190706	Child Development
10.0000	Human Services Cluster	10.10000	Early Childhood Development and Services Pathway			190708	Child Care and Support Services Management
10.0000	Human Services Cluster	10.10000	Early Childhood Development and Services Pathway			190709	Child Care Provider/Assistant
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	19-3032	Industrial-organizational psychologists		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	19-3041	Sociologists		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	21-1011	Substance abuse and behavioral disorder counselors		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	21-1013	Marriage and family therapists		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	21-1014	Mental health counselors		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	21-1015	Rehabilitation counselors		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway	21-1019	Counselors, all other		
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380101	Philosophy

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380102	Logic
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380103	Ethics
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380199	Philosophy, Other
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380201	Religion/Religious Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380202	Buddhist Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380203	Christian Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380204	Hindu Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380205	Islamic Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380206	Jewish/Judaic Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			380299	Religion/Religious Studies, Other
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			389999	Philosophy and Religion, Other
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390201	Bible/Biblical Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390301	Missions/Missionary Studies and Missiology
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390401	Religious Education
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390501	Religious/Sacred Music
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390601	Theology/Theological Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390602	Divinity/Ministry BD, Mdiv.
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390604	Pre-Theology/Pre-Ministerial Studies

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390605	Rabbinical Studies
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390606	Talmudic Studies N
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390699	Theological and ministerial Studies, Other
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390701	Pastoral Studies/Counseling
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390702	Youth Ministry New
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			390799	Pastoral Counseling and Specialized Ministries, Other
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			399999	Theological Studies and Religious Vocations, Other
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			420401	Community Psychology
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			420601	Counseling Psychology
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			420701	Developmental and Child Psychology
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			511501	Substance Abuse/Addiction Counseling
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			511504	Community Health Services/Liaison/Counseling
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			511505	Marriage and Family Therapy/Counseling
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			511506	Clinical Pastoral Counseling/Patient Counseling
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			511508	Mental Health Counseling/Counselor
10.0000	Human Services Cluster	10.20000	Counseling and Mental Health Services Pathway			511599	Mental & Social Health Services & Allied Professions, Other
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	11-9151	Social and community services managers		
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	21-1021	Child, family, and school social workers		

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Code Title
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	21-1022	Medical and public health social workers	
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	21-1093	Social and human service assistants	
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	21-2011	Clergy	
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	21-2021	Directors, religious activities and education	
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway	39-9041	Residential advisors	
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			190000 Work and Family Studies
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			190701 Human Development and Family Studies, General
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			190702 Adult Development and Aging
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			190704 Family Systems
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			190707 Family and Community Services
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			190799 Human Development, Family Studies, & Related Services, Other
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			440000 Human Services, General
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			440201 Community Organization and Advocacy
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			440701 Social Work
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			440702 Youth Services/Administration
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			440799 Social Work, Other
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			449999 Public Administration and Social Service Professions, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			450101	Social Sciences, General
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			451101	Sociology
10.0000	Human Services Cluster	10.30000	Family and Community Services Pathway			459999	Social Sciences, Other
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	11-9061	Funeral directors		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	31-9011	Massage therapists		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-1021	First-line supervisors/managers of personal service workers		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-3092	Costume attendants		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-3093	Locker room, coatroom, and dressing room attendants		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-4011	Embalmers		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-4021	Funeral attendants		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-5011	Barbers		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-5012	Hairdressers, hairstylists, and cosmetologists		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-5092	Manicurists and pedicurists		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-5093	Shampooers		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-5094	Skin care specialists		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-9021	Personal and home care aides		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	39-9031	Fitness trainers and aerobics instructors		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	51-6011	Laundry and dry-cleaning workers		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	51-6021	Pressers, textile, garment, and related materials		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway	51-6052	Tailors, dressmakers, and custom sewers		
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120301	Funeral Service and Mortuary Science, General
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120302	Funeral Direction/Service

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120303	Mortuary Science and Embalming/Embalmer
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120399	Funeral Service and Mortuary Science, Other
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120401	Cosmetology/Cosmetologist, General
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120402	Barbering/Barber
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120404	Electrolysis/Electrology and Electrolysis Technician
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120406	Make-Up Artist/Specialist
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120407	Hair Styling/Stylist and Hair Design
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120408	Facial Treatment Specialist/Facialist
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120409	Aesthetician/Esthetician and Skin Care Specialist
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120410	Nail Technician/Specialist and Manicurist
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120411	Permanent Cosmetics/Makeup and Tattooing
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120412	Salon/Beauty Salon Management/Manager
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120413	Cosmetology, Barber/Styling, and Nail Instructor
10.0000	Human Services Cluster	10.40000	Personal Care Services Pathway			120499	Cosmetology and Related Personal Grooming Arts, Other
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway	11-9141	Property, real estate and community association managers		
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway	13-2071	Loan counselors		
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190101	Family and Consumer Sciences/Human Sciences, General
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190201	Business Family and Consumer Sciences/Human Sciences

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190202	Family and Consumer Sciences/Human Sciences Communication
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190203	Consumer Merchandising/Retailing Management
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190299	Family & Consumer Sciences/Human Sciences Business Services, Other
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190401	Family Resource Management Studies, General
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190402	Consumer Economics
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190403	Consumer Services and Advocacy
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			190499	Family and Consumer Economics and Related Services, Other
10.0000	Human Services Cluster	10.50000	Consumer Services Pathway			199999	Family and Consumer Sciences/Human Sciences, Other
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway	15-1061	Database administrators		
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway	15-1071	Network and computer systems administrators		
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway	15-1081	Network systems and data communications analysts		
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway			110701	Computer Science
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway			110801	Web Page, Digital/Multimedia & Information Resources Design
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway			110901	Computer Systems Networking and Telecommunications
11.0000	Information Technology Cluster	11.10000	Network Systems Pathway			111002	System, Networking, and LAN/WAN Management/Manager
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway	15-1041	Computer support specialists		
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway	15-1099	Computer specialists, all other		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			110101	Computer and Information Sciences, General
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			110103	Information Technology
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			110199	Computer and Information Sciences, Other
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			110301	Data Processing and Data Processing Technology/Technician
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			110401	Information Science/Studies
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			110802	Data Modeling/Warehousing and Database Administration
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			111001	System Administration/Administrator
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			111099	Computer/Information Technology Services Administration & Management, Other
11.0000	Information Technology Cluster	11.20000	Information Support and Services Pathway			119999	Computer and Information Sciences & Support Services, Other
11.0000	Information Technology Cluster	11.30000	Interactive Media Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
11.0000	Information Technology Cluster	11.30000	Interactive Media Pathway			110102	Artificial Intelligence and Robotics
11.0000	Information Technology Cluster	11.30000	Interactive Media Pathway			110899	Computer Software and Media Applications, Other
11.0000	Information Technology Cluster	11.30000	Interactive Media Pathway			111004	Web/Multimedia Management and Webmaster
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway	11-3021	Computer and information systems managers		
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway	15-1021	Computer programmers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway	15-1031	Computer software engineers, applications		
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway	15-1032	Computer software engineers, systems software		
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway	15-1051	Computer systems analysts		
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			110201	Computer Programming/Programmer, General
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			110202	Computer Programming, Specific Applications
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			110203	Computer Programming, Vendor/Product Certification
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			110299	Computer Programming, Other
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			110501	Computer Systems Analysis/Analyst
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			111003	Computer and Information Systems Security
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			140901	Computer Engineering, General
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			140903	Computer Software Engineering
11.0000	Information Technology Cluster	11.40000	Programming and Software Development Pathway			140999	Computer Engineering, Other
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway	21-1029	Social workers, all other		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway	21-1092	Probation officers and correctional treatment specialists		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway	25-1111	Criminal justice and law enforcement teachers, postsecondary		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway	33-1011	First-line supervisors/managers of correctional officers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway	33-3012	Correctional officers and jailers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway			430102	Corrections
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway			430110	Juvenile Corrections
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway			430113	Corrections Administration
12.0000	Law, Public Safety, Corrections and Security Cluster	12.10000	Correction Services Pathway			430199	Corrections and Criminal Justice, Other
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	13-1061	Emergency management specialists		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	29-2041	Emergency medical technicians and paramedics		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	33-1021	First-line supervisors/managers of fire fighting and prevention workers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	33-2011	Fire fighters		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	33-2021	Fire inspectors and investigators		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	33-2022	Forest fire inspectors and prevention specialists		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway	43-5031	Police, fire, and ambulance dispatchers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway			430201	Fire Protection and Safety Technology/Technician
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway			430202	Fire Services Administration
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway			430203	Fire Science/Firefighting
12.0000	Law, Public Safety, Corrections and Security Cluster	12.20000	Emergency and Fire Management Services Pathway			430299	Fire Protection, Other
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway	33-1099	First-line supervisors/managers, protective service workers, all other		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway	33-9021	Private detectives and investigators		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway	33-9031	Gaming surveillance officers and gaming investigators		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway	33-9032	Security guards		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway	33-9091	Crossing guards		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway	33-9092	Lifeguards, ski patrol, and other recreational protective service workers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway			430109	Security and Loss Prevention Services
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway			430112	Securities Services Administration/Management
12.0000	Law, Public Safety, Corrections and Security Cluster	12.30000	Security and Protective Services Pathway			439999	Security and Protective Services, Other
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	19-4092	Forensic science technicians		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-1012	First-line supervisors/managers of police and detectives		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-3011	Bailiffs		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-3041	Parking enforcement workers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-3051	Police and sheriff's patrol officers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-3052	Transit and railroad police		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-9011	Animal control workers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway	33-9099	Protective service workers, all other		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway			430103	Criminal Justice/Law Enforcement Administration

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway			430104	Criminal Justice/Safety Studies
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway			430106	Forensic Science and Technology
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway			430107	Criminal Justice/Police Science
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway			430111	Criminalistics and Criminal Science
12.0000	Law, Public Safety, Corrections and Security Cluster	12.40000	Law Enforcement Services Pathway			450401	Criminology
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-1011	Lawyers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-1021	Administrative law judges, adjudicators, and hearing officers		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-1022	Arbitrators, mediators, and conciliators		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-1023	Judges, magistrate judges, and magistrates		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-2011	Paralegals and legal assistants		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-2092	Law clerks		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway	23-2099	Legal support workers, all other		
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220000	Legal Studies, General
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220001	Pre-Law Studies
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220101	Law (LL.B., J.D.)
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220201	Advanced Legal Research/Studies, General (LL.M., M.C.L., M.L.I., M.S.L., J.S.D./S.J.D.)
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220202	Programs for Foreign Lawyers (LL.M., M.C.L.)

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220203	American/U.S. Law/Legal Studies/Jurisprudence (LL.M., M.C.J., J.S.D./S.J.D.)
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220204	Canadian Law/Legal Studies/Jurisprudence (LL.M., M.C.J., J.S.D./S.J.D.).
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220205	Banking, Corporate, Finance, & Securities Law (LL.M., J.S.D./S.J.D.).
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220206	Comparative Law (LL.M., M.C.L., J.S.D./S.J.D.)
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220207	Energy, Environment, & Natural Resources Law (LL.M., M.S., J.S.D./S.J.D.).
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220208	Health Law (LL.M., M.J., J.S.D./S.J.D.)
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220209	International Law & Legal Studies (LL.M., J.S.D./S.J.D.)
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220210	International Business, Trade, & Tax Law (LL.M., J.S.D./S.J.D.).
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220211	Tax Law/Taxation (LL.M., J.S.D./S.J.D.).
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220299	Legal Research & Advanced Professional Studies, Other
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220301	Legal Administrative Assistant/Secretary
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220302	Legal Assistant/Paralegal
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220303	Court Reporting/Court Reporter
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			220399	Legal Support Services, Other
12.0000	Law, Public Safety, Corrections and Security Cluster	12.50000	Legal Services Pathway			229999	Legal Professions and Studies, Other
13.0000	Manufacturing Cluster	13.10000	Production Pathway	11-3051	Industrial production managers		

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Code
13.0000	Manufacturing Cluster	13.10000	Production Pathway	43-5111	Weighers, measurers, checkers, and samplers, recordkeeping	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-1011	First-line supervisors/managers of production and operating workers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2011	Aircraft structure, surfaces, rigging, and systems assemblers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2021	Coil winders, tapers, and finishers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2022	Electrical and electronic equipment assemblers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2023	Electromechanical equipment assemblers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2031	Engine and other machine assemblers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2091	Fiberglass laminators and fabricators	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2092	Team assemblers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-2093	Timing device assemblers, adjusters, and calibrators	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4011	Computer-controlled machine tool operators, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4012	Numerical tool and process control programmers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4021	Extruding and drawing machine setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4022	Forging machine setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4023	Rolling machine setters, operators, and tenders, metal and plastic	

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Code
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4031	Cutting, punching, and press machine setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4032	Drilling and boring machine tool setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4033	Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4034	Lathe and turning machine tool setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4035	Milling and planing machine setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4041	Machinists	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4051	Metal-Refining Furnace Operators and Tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4052	Pourers and Casters, Metal	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4061	Model makers, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4062	Patternmakers, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4071	Foundry mold and coremakers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4072	Molding, coremaking, and casting machine setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4081	Multiple machine tool setters, operators, and tenders, metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4111	Tool and die makers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4121	Welders, cutters, solderers, and brazers	

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4122	Welding, soldering, and brazing machine setters, operators, and tenders		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4191	Heat treating equipment setters, operators, and tenders, metal and plastic		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4192	Lay-out workers, metal and plastic		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4193	Plating and coating machine setters, operators, and tenders, metal and plastic		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-4194	Tool grinders, filers, and sharpeners		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6031	Sewing machine operators		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6041	Shoe and leather workers and repairers		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6042	Shoe machine operators and tenders		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6051	Sewers, hand		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6061	Textile bleaching and dyeing machine operators and tenders		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6062	Textile cutting machine setters, operators, and tenders		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6063	Textile knitting and weaving machine setters, operators, and tenders		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6064	Textile winding, twisting, and drawing out machine setters, operators, and tenders		
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6091	Extruding and forming machine setters, operators, and tenders, synthetic and glass fibers		
13.0000	Manufacturing Cluster	13.10000	Production Pathway				

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Title
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6092	Fabric and apparel patternmakers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-6093	Upholsterers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-7011	Cabinetmakers and bench carpenters	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-7021	Furniture finishers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-7031	Model makers, wood	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-7032	Patternmakers, wood	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-7042	Woodworking machine setters, operators, and tenders, except sawing	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-8010	Power Plant Operators, Distributors, & Dispatchers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-8011	Nuclear Power Reactor Operators	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-8012	Power Distributors & Dispatchers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-8013	Power Plant Operators	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-8091	Chemical plant and system operators	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9011	Chemical equipment operators and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9021	Crushing, grinding, and polishing machine setters, operators, and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9022	Grinding and polishing workers, hand	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9023	Mixing and blending machine setters, operators, and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9031	Cutters and trimmers, hand	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9032	Cutting and slicing machine setters, operators, and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9041	Extruding, forming, pressing, and compacting machine setters, operators, and tenders	

Primary Occupations and Instructional Programs by Clusters/Pathways						
Table 7: Cluster-Pathway-SOC-CIP						
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP		
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked		
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)
Code	Title	Code	Title	Code	Title	Title
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9051	Furnace, kiln, oven, drier, and kettle operators and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9061	Inspectors, testers, sorters, samplers, and weighers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9071	Jewelers and precious stone and metal workers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9111	Packaging and filling machine operators and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9121	Coating, painting, and spraying machine setters, operators, and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9122	Painters, transportation equipment	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9123	Painting, coating, and decorating workers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9131	Photographic process workers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9132	Photographic processing machine operators	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9141	Semiconductor processors	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9191	Cementing and gluing machine operators and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9192	Cleaning, washing, and metal pickling equipment operators and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9193	Cooling and freezing equipment operators and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9194	Etchers and engravers	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9195	Molders, shapers, and casters, except metal and plastic	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9196	Paper goods machine setters, operators, and tenders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9197	Tire builders	
13.0000	Manufacturing Cluster	13.10000	Production Pathway	51-9198	Helpers--Production workers	

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.10000	Production Pathway	53-7063	Machine feeders and offbearers		
13.0000	Manufacturing Cluster	13.10000	Production Pathway			410299	Nuclear & Industrial Radiologic Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480000	Precision Production Trades, General
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480303	Upholstery/Upholsterer
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480304	Shoe, Boot and Leather Repair
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480399	Leatherworking and Upholstery, Other
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480501	Machine Tool Technology/Machinist
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480503	Machine Shop Technology/Assistant
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480506	Sheet Metal Technology/Sheetworking
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480507	Tool and Die Technology/Technician
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480508	Welding Technology/Welder
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480701	Woodworking, General
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480702	Furniture Design and Manufacturing
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480703	Cabinetmaking and Millwork/Millwright
13.0000	Manufacturing Cluster	13.10000	Production Pathway			480799	Woodworking, Other
13.0000	Manufacturing Cluster	13.10000	Production Pathway			489999	Precision Production, Other
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway	13-1023	Purchasing agents, except wholesale, retail, and farm products		
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway	17-3026	Industrial engineering technicians		
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway	17-3027	Mechanical engineering technicians		
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway	47-2011	Boilermakers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway	49-9044	Millwrights		
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			150304	Laser and Optical Technology/Technician
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			150404	Instrumentation Technology/Technician
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			190901	Apparel and Textiles, General
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			190902	Apparel and Textile Manufacture
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			190904	Textile Science
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			190999	Apparel and Textiles, Other
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			410301	Chemical Technology/Technician
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			410399	Physical Science Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.20000	Manufacturing Production Process Development Pathway			419999	Science Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-1011	First-line supervisors/managers of mechanics, installers, and repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2011	Computer, automated teller, and office machine repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2021	Radio mechanics		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2022	Telecommunications equipment installers and repairers, except line installers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2092	Electric motor, power tool, and related repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2094	Electrical and electronics repairers, commercial and industrial equipment		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2097	Electronic home entertainment equipment installers and repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-2098	Security and fire alarm systems installers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-3053	Outdoor power equipment and other small engine mechanics		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9041	Industrial machinery mechanics		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9042	Maintenance and repair workers, general		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9043	Maintenance workers, machinery		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9062	Medical equipment repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9063	Musical instrument repairers and tuners		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9064	Watch repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9091	Coin, vending, and amusement machine servicers and repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9093	Fabric menders, except garment		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway	49-9094	Locksmiths and safe repairers		
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150303	Electrical, Electronic & Communications Engineering Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150305	Telecommunications Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150399	Electrical & Electronic Engineering Technologies/Technicians, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150401	Biomedical Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150403	Electromechanical Technology/Electromechanical Engineering Technology
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150405	Robotics Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150499	Electromechanical & Instrumentation and Maintenance Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150607	Plastics Engineering Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150611	Metallurgical Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150612	Industrial Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150613	Manufacturing Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150699	Industrial Production Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150701	Occupational Safety and Health Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150703	Industrial Safety Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150805	Mechanical Engineering/Mechanical Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			150899	Mechanical Engineering Related Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151103	Hydraulics and Fluid Power Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151199	Engineering-Related Technologies, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151201	Computer Engineering Technology/Technician

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151202	Computer Technology/Computer Systems Technology
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151203	Computer Hardware Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151204	Computer Software Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			151299	Computer Engineering Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			190605	Home Furnishings and Equipment Installers
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			410204	Industrial Radiologic Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			410205	Nuclear/Nuclear Power Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			410299	Nuclear & Industrial Radiologic Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470000	Mechanics and Repairers, General
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470101	Electrical/Electronics Equipment Installation & Repair, General
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470102	Business Machine Repair
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470104	Computer Installation and Repair Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470105	Industrial Electronics Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470106	Appliance Installation and Repair Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470303	Industrial Mechanics and Maintenance Technology
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470399	Heavy/Industrial Equipment Maintenance Technologies, Other
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470402	Gunsmithing/Gunsmith

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470403	Locksmithing and Safe Repair
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470404	Musical Instrument Fabrication and Repair
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470408	Watchmaking and Jewelmaking
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470409	Parts & Warehousing Operations & Maintenance Technology/Technician
13.0000	Manufacturing Cluster	13.30000	Maintenance, Installation and Repair Pathway			470499	Precision Systems Maintenance and Repair Technologies, Other
13.0000	Manufacturing Cluster	13.40000	Quality Assurance Pathway	51-9082	Medical appliance technicians		
13.0000	Manufacturing Cluster	13.40000	Quality Assurance Pathway			150702	Quality Control Technology/Technician
13.0000	Manufacturing Cluster	13.40000	Quality Assurance Pathway			150799	Quality Control and Safety Technologies/Technicians, Other
13.0000	Manufacturing Cluster	13.50000	Logistics and Inventory Control	43-5061	Production, planning, and expediting clerks		
13.0000	Manufacturing Cluster	13.50000	Logistics and Inventory Control				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
13.0000	Manufacturing Cluster	13.60000	Health, Safety and Environmental Assurance		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
13.0000	Manufacturing Cluster	13.60000	Health, Safety and Environmental Assurance				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
14.0000	Marketing Sales and Service Cluster	14.10000	Management and Entrepreneurship Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
14.0000	Marketing Sales and Service Cluster	14.10000	Management and Entrepreneurship Pathway			521401	Marketing/Marketing Management, General

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
14.0000	Marketing Sales and Service Cluster	14.10000	Management and Entrepreneurship Pathway			521403	International Marketing
14.0000	Marketing Sales and Service Cluster	14.10000	Management and Entrepreneurship Pathway			521499	Marketing, Other
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	13-1022	Wholesale and retail buyers, except farm products		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	27-1022	Fashion designers		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	27-1023	Floral designers		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	27-1026	Merchandise displayers and window trimmers		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-2031	Retail salespersons		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-4011	Sales representatives, wholesale and manufacturing, technical and scientific products		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9011	Demonstrators and product promoters		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9012	Models		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9021	Real estate brokers		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9022	Real estate sales agents		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9031	Sales engineers		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9041	Telemarketers		
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway	41-9091	Door-to-door sales workers, news and street vendors, and related workers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			190905	Apparel and Textile Marketing Management
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			190906	Fashion and Fabric Consultant
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521501	Real Estate
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521803	Retailing and Retail Operations
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521804	Selling Skills and Sales Operations
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521899	General Merchandising, Sales, & Related Marketing Operations, Other
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521901	Auctioneering
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521902	Fashion Merchandising
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521903	Fashion Modeling
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521904	Apparel and Accessories Marketing Operations
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521909	Special Products Marketing Operations
14.0000	Marketing Sales and Service Cluster	14.20000	Professional Sales and Marketing Pathway			521999	Specialized Merchandising, Sales, & Related Marketing Operations, Other
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	41-2011	Cashiers, except gaming		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	41-2021	Counter and rental clerks		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	43-3061	Procurement clerks		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	43-4051	Customer service representatives		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	43-4151	Order clerks		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	43-9061	Office clerks, general		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	53-6021	Parking lot attendants		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway	53-6031	Service station attendants		
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway			521801	Sales, Distribution, and Marketing Operations, General
14.0000	Marketing Sales and Service Cluster	14.30000	Buying and Merchandising Pathway			521802	Merchandising and Buying Operations
14.0000	Marketing Sales and Service Cluster	14.40000	Marketing Communications and Promotion Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
14.0000	Marketing Sales and Service Cluster	14.40000	Marketing Communications and Promotion Pathway				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
14.0000	Marketing Sales and Service Cluster	14.50000	Marketing Information Management and Research Pathway	19-3021	Market research analysts		
14.0000	Marketing Sales and Service Cluster	14.50000	Marketing Information Management and Research Pathway			521402	Marketing Research
14.0000	Marketing Sales and Service Cluster	14.60000	Distribution and Logistics Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
14.0000	Marketing Sales and Service Cluster	14.60000	Distribution and Logistics Pathway				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
14.0000	Marketing Sales and Service Cluster	14.70000	E-Marketing Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
14.0000	Marketing Sales and Service Cluster	14.70000	E-Marketing Pathway			520208	E-Commerce/Electronic Commerce

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	11-9041	Engineering managers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2000	Engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2011	Aerospace engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2021	Agricultural engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2041	Chemical engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2061	Computer hardware engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2071	Electrical engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2072	Electronics engineers, except computer		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2111	Health and safety engineers, except mining safety engineers and inspectors		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2112	Industrial engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2121	Marine engineers and naval architects		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2131	Materials engineers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2141	Mechanical engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2151	Mining and geological engineers, including mining safety engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2161	Nuclear engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2171	Petroleum engineers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-2199	Engineers, all other		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-3011	Architectural and civil drafters		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-3012	Electrical and electronics drafters		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-3023	Electrical and electronic engineering technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-3024	Electro-mechanical technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-3029	Engineering technicians, except drafters, all other		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	17-3031	Surveying and mapping technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway	27-3042	Technical writers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140101	Engineering, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140201	Aerospace, Aeronautical and Astronautical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140301	Agricultural/Biological Engineering and Bioengineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140401	Architectural Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140501	Biomedical/Medical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140601	Ceramic Sciences and Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140701	Chemical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140801	Civil Engineering, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140802	Geotechnical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140803	Structural Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140804	Transportation and Highway Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140805	Water Resources Engineering

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140899	Civil Engineering, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			140902	Computer Hardware Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141001	Electrical, Electronics and Communications Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141101	Engineering Mechanics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141201	Engineering Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141301	Engineering Science
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141401	Environmental/Environmental Health Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141801	Materials Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			141901	Mechanical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142001	Metallurgical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142101	Mining and Mineral Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142201	Naval Architecture and Marine Engineering

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142301	Nuclear Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142401	Ocean Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142501	Petroleum Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142701	Systems Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			142801	Textile Sciences and Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			143201	Polymer/Plastics Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			143301	Construction Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			143401	Forest Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			143501	Industrial Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			143601	Manufacturing Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			143901	Geological/Geophysical Engineering
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			149999	Engineering, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			150000	Engineering Technology, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			151401	Nuclear Engineering Technology/Technician
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			151501	Engineering/Industrial Management
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.10000	Engineering and Technology Pathway			159999	Engineering Technologies/Technicians, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	15-1011	Computer and information scientists, research		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	15-2021	Mathematicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	15-2041	Statisticians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-1022	Microbiologists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-1029	Biological scientists, all other		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-1031	Conservation scientists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-1099	Life scientists, all other		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2011	Astronomers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2012	Physicists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2021	Atmospheric and space scientists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2031	Chemists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2032	Materials scientists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2041	Environmental scientists and specialists, including health		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2042	Geoscientists, except hydrologists and geographers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-2043	Hydrologists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-3022	Survey researchers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-3091	Anthropologists and archeologists		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-3092	Geographers		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-3093	Historians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-3094	Political scientists		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-4011	Agricultural and food science technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-4021	Biological technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-4031	Chemical technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-4051	Nuclear technicians		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-4061	Social science research assistants		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	19-4099	Life, physical, and social science technicians, all other		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway	25-1194	Vocational education teachers, postsecondary		
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			143101	Materials Science
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260101	Biology/Biological Sciences, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260102	Biomedical Sciences, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260202	Biochemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260203	Biophysics

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260204	Molecular Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260205	Molecular Biochemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260206	Molecular Biophysics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260207	Structural Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260208	Photobiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260209	Radiation Biology/Radiobiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260210	Biochemistry/Biophysics and Molecular Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260299	Biochemistry, Biophysics and Molecular Biology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260301	Botany/Plant Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260305	Plant Pathology/Phytopathology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260307	Plant Physiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260308	Plant Molecular Biology

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260399	Botany/Plant Biology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260401	Cell/Cellular Biology and Histology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260403	Anatomy
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260404	Developmental Biology and Embryology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260405	Neuroanatomy
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260406	Cell/Cellular and Molecular Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260407	Cell Biology and Anatomy
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260499	Cell/Cellular Biology and Anatomical Sciences, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260502	Microbiology, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260503	Medical Microbiology and Bacteriology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260504	Virology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260505	Parasitology

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260506	Mycology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260507	Immunology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260599	Microbiological Sciences and Immunology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260701	Zoology/Animal Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260702	Entomology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260707	Animal Physiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260708	Animal Behavior and Ethology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260709	Wildlife Biology New
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260799	Zoology/Animal Biology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260801	Genetics, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260802	Molecular Genetics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260803	Microbial and Eukaryotic Genetics

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260804	Animal Genetics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260805	Plant Genetics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260806	Human/Medical Genetics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260899	Genetics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260901	Physiology, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260902	Molecular Physiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260903	Cell Physiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260904	Endocrinology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260905	Reproductive Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260906	Neurobiology and Neurophysiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260907	Cardiovascular Science
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260908	Exercise Physiology

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260909	Vision Science/Physiological Optics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260910	Pathology/Experimental Pathology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260911	Oncology and Cancer Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			260999	Physiology, Pathology, and Related Sciences, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261001	Pharmacology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261002	Molecular Pharmacology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261003	Neuropharmacology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261004	Toxicology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261005	Molecular Toxicology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261006	Environmental Toxicology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261007	Pharmacology and Toxicology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261099	Pharmacology and Toxicology, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261101	Biometry/Biometrics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261102	Biostatistics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261103	Bioinformatics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261199	Biomathematics and Bioinformatics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261301	Ecology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261302	Marine Biology and Biological Oceanography
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261303	Evolutionary Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261304	Aquatic Biology/Limnology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261305	Environmental Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261306	Population Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261307	Conservation Biology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261308	Systematic Biology/Biological Systematics

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261309	Epidemiology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			261399	Ecology, Evolution, Systematics & Population Biology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			269999	Biological and Biomedical Sciences, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270101	Mathematics, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270102	Algebra and Number Theory
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270103	Analysis and Functional Analysis
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270104	Geometry/Geometric Analysis
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270105	Topology and Foundations
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270199	Mathematics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270301	Applied Mathematics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270303	Computational Mathematics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270399	Applied Mathematics, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270501	Statistics, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270502	Mathematical Statistics and Probability
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			270599	Statistics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			279999	Mathematics and Statistics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			300101	Biological and Physical Sciences
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			300601	Systems Science and Theory
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			300801	Mathematics and Computer Science
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301001	Biopsychology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301101	Gerontology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301201	Historic Preservation and Conservation
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301202	Cultural Resource Management and Policy Analysis
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301299	Historic Preservation and Conservation, Other

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301301	Medieval and Renaissance Studies
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301501	Science, Technology and Society
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301701	Behavioral Sciences
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301801	Natural Sciences
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			301901	Nutrition Sciences
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			302001	International/Global Studies
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			302101	Holocaust and Related Studies
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			302201	Ancient Studies/Civilization
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			302202	Classical, Ancient Mediterranean, and Near Eastern/Asian Studies and Archaeology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			302401	Neuroscience
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			302501	Cognitive Science

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			309999	Multi-/Interdisciplinary Studies, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400101	Physical Sciences
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400201	Astronomy
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400202	Astrophysics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400203	Planetary Astronomy and Science
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400299	Astronomy and Astrophysics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400401	Atmospheric Sciences and Meteorology, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400402	Atmospheric Chemistry and Climatology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400403	Atmospheric Physics and Dynamics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400404	Meteorology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400499	Atmospheric Sciences and Meteorology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400501	Chemistry, General

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400502	Analytical Chemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400503	Inorganic Chemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400504	Organic Chemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400506	Physical and Theoretical Chemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400507	Polymer Chemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400508	Chemical Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400599	Chemistry, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400601	Geology/Earth Science, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400602	Geochemistry
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400603	Geophysics and Seismology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400604	Paleontology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400605	Hydrology and Water Resources Science

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400606	Geochemistry and Petrology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400607	Oceanography, Chemical and Physical
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400699	Geological and Earth Sciences/Geosciences, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400801	Physics, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400802	Atomic/Molecular Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400804	Elementary Particle Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400805	Plasma and High-Temperature Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400806	Nuclear Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400807	Optics/Optical Sciences
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400808	Solid State and Low-Temperature Physics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400809	Acoustics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400810	Theoretical and Mathematical Physics

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			400899	Physics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			409999	Physical Sciences, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450201	Anthropology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450202	Physical Anthropology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450299	Anthropology, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450301	Archeology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450501	Demography and Population Studies
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450601	Economics, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450602	Applied Economics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450603	Econometrics and Quantitative Economics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450604	Development Economics and International Development
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450605	International Economics

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450699	Economics, Other
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450701	Geography
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450702	Cartography
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			450799	Geography, Other N
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			451003	Canadian Government and Politics
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			511401	Medical Scientist (MS, PhD)
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540101	History, General
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540102	American History (United States)
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540103	European History
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540104	History and Philosophy of Science and Technology
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540105	Public/Applied History and Archival Administration
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540106	Asian History

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540107	Canadian History
15.0000	Science, Technology, Engineering and Mathematics Cluster	15.20000	Science and Mathematics Pathway			540199	History, Other
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	11-3071	Transportation, storage, and distribution managers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	39-6031	Flight attendants		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	43-5032	Dispatchers, except police, fire, and ambulance		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-1011	Aircraft cargo handling supervisors		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-2011	Airline pilots, copilots, and flight engineers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-2012	Commercial pilots		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-2021	Air traffic controllers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-2022	Airfield operations specialists		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-3011	Ambulance drivers and attendants, except emergency medical technicians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-3021	Bus drivers, transit and intercity		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-3022	Bus drivers, school		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-3032	Truck drivers, heavy and tractor-trailer		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-3033	Truck drivers, light or delivery services		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-3041	Taxi drivers and chauffeurs		

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-4011	Locomotive engineers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-4012	Locomotive firers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-4013	Rail yard engineers, dinkey operators, and hostlers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-4021	Railroad brake, signal, and switch operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-4031	Railroad conductors and yardmasters		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-4041	Subway and streetcar operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-5011	Sailors and marine oilers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-5021	Captains, mates, and pilots of water vessels		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-5022	Motorboat operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-5031	Ship engineers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-6011	Bridge and lock tenders		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway	53-7051	Industrial truck and tractor operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			150801	Aeronautical/Aerospace Engineering Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			150803	Automotive Engineering Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490101	Aeronautics/Aviation/Aerospace Science & Technology, General
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490102	Airline/Commercial/Professional Pilot and Flight Crew
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490104	Aviation/Airway Management and Operations

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
September 2007 Version / Subject to Revision after Initial Use				CIP-SOC not directly linked			
Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490105	Air Traffic Controller
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490106	Airline Flight Attendant
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490108	Flight Instructor
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490199	Air Transportation, Other
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490205	Truck and Bus Driver/Commercial Vehicle Operation
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490299	Ground Transportation, Other
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490309	Marine Science/Merchant Marine Officer
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			490399	Marine Transportation, Other
16.0000	Transportation, Distribution, and Logistics Cluster	16.10000	Transportation Operations Pathway			499999	Transportation and Materials Moving, Other
16.0000	Transportation, Distribution, and Logistics Cluster	16.20000	Logistics Planning and Management Services Pathway	13-1081	Logisticians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.20000	Logistics Planning and Management Services Pathway			520209	Transportation/Transportation Management
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway	43-5071	Shipping, receiving, and traffic clerks		
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway	53-1021	First-line supervisors/managers of helpers, laborers, and material movers, hand		
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway	53-1031	First-line supervisors/managers of transportation and material-moving machine and vehicle operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway	53-7062	Laborers and freight, stock, and material movers, hand		

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway	53-7064	Packers and packagers, hand		
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway	53-7121	Tank car, truck, and ship loaders		
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway			520409	Parts, Warehousing, & Inventory Management Operations
16.0000	Transportation, Distribution, and Logistics Cluster	16.30000	Warehousing and Distribution Center Operations Pathway			520410	Traffic, Customs, & Transportation Clerk/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	17-3021	Aerospace engineering and operations technicians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	47-4061	Rail-track laying and maintenance equipment operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-2091	Avionics technicians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-2093	Electrical and electronics installers and repairers, transportation equipment		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-2096	Electronic equipment installers and repairers, motor vehicles		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3011	Aircraft mechanics and service technicians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3021	Automotive body and related repairers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3022	Automotive glass installers and repairers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3023	Automotive service technicians and mechanics		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3031	Bus and truck mechanics and diesel engine specialists		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3042	Mobile heavy equipment mechanics, except engines		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3043	Rail car repairers		

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3051	Motorboat mechanics		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3052	Motorcycle mechanics		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3091	Bicycle repairers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3092	Recreational vehicle service technicians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-3093	Tire repairers and changers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	49-9097	Signal and track switch repairers		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway	53-7061	Cleaners of vehicles and equipment		
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470603	Autobody/Collision and Repair Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470604	Automobile/Automotive Mechanics Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470605	Diesel Mechanics Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470606	Small Engine Mechanics and Repair Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470607	Airframe Mechanics & Aircraft Maintenance Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470608	Aircraft Powerplant Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470609	Avionics Maintenance Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470610	Bicycle Mechanics and Repair Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470611	Motorcycle Maintenance and Repair Technology/Technician

Primary Occupations and Instructional Programs by Clusters/Pathways							
Table 7: Cluster-Pathway-SOC-CIP							
Single Assignment of Occupation and CIP to Pathway				Sorted by Pathway, then SOC and CIP			
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470612	Vehicle Emissions Inspection & Maintenance Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470613	Medium/Heavy Vehicle and Truck Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470614	Alternative Fuel Vehicle Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470615	Engine Machinist
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470616	Marine Maintenance/Fitter & Ship Repair Technology/Technician
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			470699	Vehicle Maintenance and Repair Technologies, Other.
16.0000	Transportation, Distribution, and Logistics Cluster	16.40000	Facility and Mobile Equipment Maintenance Pathway			479999	Mechanic and Repair Technologies/Technicians, Other
16.0000	Transportation, Distribution, and Logistics Cluster	16.50000	Transportation Systems/ Infrastructure Planning, Management, and Regulation Pathway	53-6041	Traffic technicians		
16.0000	Transportation, Distribution, and Logistics Cluster	16.50000	Transportation Systems/ Infrastructure Planning, Management, and Regulation Pathway				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
16.0000	Transportation, Distribution, and Logistics Cluster	16.60000	Health, Safety and Environmental Management Pathway		NO OCCUPATIONS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY		
16.0000	Transportation, Distribution, and Logistics Cluster	16.60000	Health, Safety and Environmental Management Pathway				NO INSTRUCTIONAL PROGRAMS WITH PRIMARY ASSIGNMENT TO THIS PATHWAY
16.0000	Transportation, Distribution, and Logistics Cluster	16.70000	Sales and Service Pathway	43-3021	Billing and posting clerks and machine operators		
16.0000	Transportation, Distribution, and Logistics Cluster	16.70000	Sales and Service Pathway	43-5011	Cargo and freight agents		

Primary Occupations and Instructional Programs by Clusters/Pathways							
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Career Clusters		Career Pathways		Related BLS/SOC Occupations		Related Instructional Programs (CIP)	
Code	Title	Code	Title	Code	Title	Code	Title
16.0000	Transportation, Distribution, and Logistics Cluster	16.70000	Sales and Service Pathway			521907	Vehicle & Vehicle Parts & Accessories Marketing Operations
All occupations assigned to a single cluster/pathway for data reporting and related uses							
Prepared by:							
DTI Associates, Inc							
under contract no. ED-04-CO-0121/0001 with U.S. Department of Education, OVAE							
compiled by Don Hilber, based on other tables authored by Richard Dempsey							
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