

Methodology for Montana

The federal Carl D. Perkins Career and Technical Education Improvement Act of 2006 included several references to "high demand, high wage, or high skill" occupations. However, the individual states were encouraged in this federal training legislation to develop their own, definitions of these terms for program applications.

The Montana Department of Labor and Industry, in collaboration with the Montana Office of the Commissioner of Higher Education, and other partners, developed definitions for "high-wage, high-skill, and high-demand" occupations.

Criteria for High Demand, High Wage or High Skill Occupations

High Demand Criteria: A greater than average projected annual job growth rate for Montana (1.7% using 2006-2016 projections) **or** at least 50 annual average job openings.

High Wage Criteria: A median annual **or** hourly wage that is greater than the median wage at the 75th percentile (\$39,840 annually or \$19.15 hourly in 2007) for all occupations in the state of Montana.

High Skill Criteria: The occupation requires completion of an associate degree, postsecondary career technical education, more than 12 months of on-the-job training, or a combination of work and formal training **or** at least half of the 10 basic O*NET skills for this occupation are ranked at or above 50% in importance and at least 5 of the other O*NET skills required for this occupation are at or above 50% in importance.

For comments or discussion, please contact:

The Montana Department of Labor and Industry
Research and Analysis Bureau
406-444-2430
PO Box 1728
Helena, MT 59624-1728

OSD_HdwsMT - Windows Internet Explorer
 http://www.occsupplydemand.org/HDWS/OSD_HdwsMT.aspx?STdws=MT

File Edit View Favorites Tools Help

OSD_HdwsMT x Blank Page

OSDS OCCUPATIONAL SUPPLY DEMAND SYSTEM

Test Site: [Programs of Study for Sub-Baccalaureate Occupations](#)

Home > Select (High DWS)

Montana

All Occs Sub-BA/BS BA/BS or higher >> go

SOC (O*NET) Code	SOC (O*NET) Title	High		
		Demand	Wage	Skill
13-2011	Accountants and Auditors	✓	✓	✓
13-2011.02	(O*NET) Auditors	✓	✓	✓
13-2011.01	(O*NET) Accountants	✓	✓	✓
11-3011	Administrative Services Managers	✓	✓	✓
25-3011	Adult Literacy, Remedial Education, and GED Teachers and Instructors	✓		✓
11-2011	Advertising and Promotions Managers		✓	✓
41-3011	Advertising Sales Agents	✓		✓
17-3021	Aerospace Engineering and Operations Technicians		NA	✓
19-4011.02	(O*NET) Food Science Technicians			✓
19-4011	Agricultural and Food Science Technicians			✓
19-4011.01	(O*NET) Agricultural Technicians			✓
17-2021	Agricultural Engineers		NA	✓
45-2091	Agricultural Equipment Operators	✓		✓

Notice the first screen for High demand/wage/skill is organized by SOC and (O*NET) Codes. A Classification of Instructional Program (CIP) code can train students for many occupations (or SOC/O*NET coded occupations)

OSD_CIPlistMT - Windows Internet Explorer
 http://www.occsupplydemand.org/HDWS/OSD_CIPlistMT.aspx

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OSDS OCCUPATIONAL SUPPLY DEMAND SYSTEM

Home > [Select \(High DWS\)](#) > Test Site: Program List

Test Site for Kathy Wilkins

Montana

Programs of Study for Sub-Baccalaureate Occupations

CIP Code	CIP Title
52.0302	Accounting Technology/Technician and Bookkeeping
52.0401	Administrative Assistant and Secretarial Science, General
01.0102	Agribusiness/Agricultural Business Operations
01.0101	Agricultural Business and Management, General
01.0205	Agricultural Mechanics and Equipment/Machine Technology
01.0301	Agricultural Production Operations, General
47.0607	Airframe Mechanics and Aircraft Maintenance Technology/Technician
01.0302	Animal/Livestock Husbandry and Production
47.0603	Autobody/Collision and Repair Technology/Technician
47.0604	Automobile/Automotive Mechanics Technology/Technician
15.0803	Automotive Engineering Technology/Technician
15.0401	Biomedical Technology/Technician
46.0401	Building/Property Maintenance and Management
52.0201	Business Administration and Management, General
52.0407	Business/Office Automation/Technology/Data Entry
15.1302	CAD/CADD Drafting and/or Design Technology/Technician
46.0201	Carpentry/Carpenter
19.0708	Child Care and Support Services Management
19.0709	Child Care Provider/Assistant
15.1304	Civil Drafting and Civil Engineering CAD/CADD
15.0201	Civil Engineering Technology/Technician
44.0201	Community Organization and Advocacy
11.9999	Computer and Information Sciences and Support Services, Other

These two screen shots show the information organized by CIP code. By clicking on the CIP code you can bring up the HDWS information for each SOC & O*NET code within that CIP. Montana uses a cut off total of 50% for a CIP to be considered HSWD.

OSD_CipSocMT - Windows Internet Explorer
 http://www.occsupplydemand.org/HDWS/OSD_CipSocMT.aspx?cip=15.1302&ua=037A-02

File Edit View Favorites Tools Help

OSD_CipSocMT x Blank Page

OSDS OCCUPATIONAL SUPPLY DEMAND SYSTEM

Home > [Select \(High DWS\)](#) > [Test Site: Program List](#) > 15.1302 CAD/CADD Drafting and/or Design Technology/Technician

Test Site for Kathy Wilkins

Montana

CIP Information: 15.1302 CAD/CADD Drafting and/or Design Technology/Technician

Sub-Baccalaureate Occupations			Criteria			Employment			
SOC Code	SOC Title	Empl Est 2006	High Demand	High Wage	High Skill	High Demand	High Wage	High Skill	Empl Proj 2016
17-3011	Architectural and Civil Drafters	471			yes				471
17-3012	Electrical and Electronics Drafters	118	yes	yes	yes	118	118	118	142
17-3013	Mechanical Drafters	145	yes	yes	yes	145	145	145	197
17-3019	Drafters, All Other	74		yes	yes		74	74	79
Totals		808				263	337	808	945
Percent of Total Employment						32.55%	41.71%	100.00%	

Indicator: 5P1 Participation Non-Traditional

Fiscal Year: July 1, 2007 - June 30, 2008 **Academic Year:** Summer 07 - Spring 08 **Indicator & State Goal:** 5P1 Participation Non-Traditional 12.00%

Numerator: Number of CTE participants from underrepresented gender groups who participated in a CTE program that leads to employment in nontraditional fields during the reporting year.

Denominator: Number of CTE participants who participated in a CTE program that leads to employment in nontraditional fields during the reporting year.

College	Negotiated Level of Perfor.	Totals	Males	Females	# Males	# Female	AI	AP	BLK	HIS	WHT	UK	Disability	PELL or BIA	Non-trad Gender	Displaced Home-makers	Single Parents	Limited English
BCC	12.00%	20.63%	0.93%	61.54%	108	52	21%	0%	0%	0%	0%	0%	0.00%	22.22%	20.63%	0.00%	0.00%	0.00%
DCC	12.00%	27.27%	0.00%	60.00%	90	75	0%	0%	0%	0%	29%	0%	0.00%	36.92%	27.27%	0.00%	0.00%	0.00%
FPCC	12.00%	18.23%	7.56%	35.62%	119	73	18%	0%	0%	0%	0%	0%	0.00%	19.15%	18.23%	19.05%	24.32%	0.00%
FVCC	12.00%	24.04%	13.79%	31.40%	174	242	0%	0%	0%	0%	24%	0%	0.00%	0.00%	24.04%	0.00%	0.00%	0.00%
MCC	12.00%	10.49%	8.00%	11.61%	50	112	0%	0%	0%	0%	11%	0%	0.00%	9.46%	10.49%	0.00%	17.65%	0.00%
MSUB	12.00%	9.34%	4.76%	14.74%	336	285	0%	0%	0%	5%	9%	6%	20.00%	8.23%	9.34%	0.00%	0.00%	66.67%
MSUGF	12.00%	22.24%	5.53%	32.35%	199	340	0%	0%	0%	43%	22%	0%	0.00%	26.90%	22.24%	0.00%	0.00%	0.00%
MSUN	12.00%	9.62%	7.41%	12.50%	135	104	0%	0%	0%	0%	0%	11%	15.00%	0.00%	9.62%	0.00%	0.00%	0.00%
MTCOT	12.00%	12.97%	16.39%	9.58%	238	240	22%	0%	0%	0%	0%	17%	0.00%	15.12%	12.97%	0.00%	0.00%	0.00%
SKC	12.00%	12.05%	37.10%	2.47%	62	162	11%	0%	0%	0%	13%	0%	0.00%	8.57%	12.05%	12.50%	3.28%	0.00%
UMH	12.00%	12.29%	3.07%	29.51%	228	122	0%	0%	0%	20%	12%	0%	11.11%	10.53%	12.29%	12.50%	0.00%	0.00%
UMM	12.00%	14.29%	12.27%	16.00%	277	325	0%	0%	0%	0%	14%	11%	23.08%	15.79%	14.29%	0.00%	0.00%	0.00%
StateTotals		15.65%	8.83%	22.14%	2016	2132	16%	22%	7%	19%	16%	15.17%	20.92%	16.38%	15.65%	17.52%	17.42%	42.11%

Wednesday, April 29, 2009

Report name: RPT_5P1_state_results

Note: If 0% above is black, this indicates there were no students in that category. If the 0% is red, it indicates no students in that category were nontraditional.

Fiscal Year: July 1, 2007 - June 30, 2008 **Academic Year:** Summer 07 - Spring 08 **Indicator & State Goal:** 5P1 Participation Non-Traditional 12.00%

Numerator: Number of CTE participants from underrepresented gender groups who participated in a CTE program that leads to employment in nontraditional fields during the reporting year.

Denominator: Number of CTE participants who participated in a CTE program that leads to employment in nontraditional fields during the reporting year.

Montana Field: Business and Management - Career Cluster: Hospitality and Tourism

120503 - Culinary Arts/Chef Training (nontraditional for Females)

	Totals	NT Males	NT Females	American Indian or Alaskan	Asian or Pacific Islander	Black-not Hispanic	Hispanic	White-not Hispanic	Ethnicity Unknown	Disability	PELL or BIA	Non-trad Gender	Displaced Home-makers	Single Parents	Limited English
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- Culinary Arts

Grantee Goal: 12.00%

Remainder	16	16	0	0	0	1	0	13	2	2	8	16	0	0	0
Numerator	18	0	18	0	0	0	1	17	0	2	7	18	0	0	0
Denominator	34	16	18	0	0	1	1	30	2	4	15	34	0	0	0
Results	52.94%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	56.67%	0.00%	50.00%	46.67%	52.94%	0.00%	0.00%	0.00%

- Culinary Arts

Grantee Goal: 12.00%

Remainder	9	9	0	0	0	0	1	8	0	0	2	9	0	0	0
Numerator	6	0	6	0	0	0	0	6	0	0	0	6	0	0	0
Denominator	15	9	6	0	0	0	1	14	0	0	2	15	0	0	0
Results	40.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	42.86%	0.00%	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%

Totals/Results for 120503 - Culinary Arts/Chef Training (high demand) (high skill)

Remainder	25	25	0	0	0	1	1	21	2	2	10	25	0	0	0
Numerator	24	0	24	0	0	0	1	23	0	2	7	24	0	0	0
Denominator	49	25	24	0	0	1	2	44	2	4	17	49	0	0	0
Results	48.98%	0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	52.27%	0.00%	50.00%	41.18%	48.98%	0.00%	0.00%	0.00%

Fiscal Year: July 1, 2007 - June 30, 2008 Academic Year: Summer 07 - Spring 08 Indicator & State Goal: 5P1 Participation Non-Traditional 12.00%

Numerator: Number of CTE participants from underrepresented gender groups who participated in a CTE program that leads to employment in nontraditional fields during the reporting year.

Denominator: Number of CTE participants who participated in a CTE program that leads to employment in nontraditional fields during the reporting year.

	Totals	NT Males	NT Females	American Indian or Alaskan	Asian or Pacific Islander	Black-not Hispanic	Hispanic	White-not Hispanic	Ethnicity Unknown	Disability	PELL or BIA	Non-trad Gender	Displaced Home-makers	Single Parents	Limited English
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Program Information: BT - Building Trades (nontraditional for Females) (high wage) (high skill)

Remainder	27	27	0	26	0	0	0	1	0	0	20	27	7	5	0
Numerator	1	0	1	1	0	0	0	0	0	0	1	1	0	0	0
Denominator	28	27	1	27	0	0	0	1	0	0	21	28	7	5	0
Results	3.57%	0.00%	100.00%	3.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.76%	3.57%	0.00%	0.00%	0.00%

Program Information: CT - Construction Technology (nontraditional for Females) (high wage) (high skill)

Remainder	12	12	0	11	0	0	0	1	0	0	9	12	5	3	0
Numerator	1	0	1	1	0	0	0	0	0	0	1	1	1	1	0
Denominator	13	12	1	12	0	0	0	1	0	0	10	13	6	4	0
Results	7.69%	0.00%	100.00%	8.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	7.69%	16.67%	25.00%	0.00%

Program Information: HE - Heavy Equipment Operations (nontraditional for Females) (high wage) (high demand) (high skill)

Remainder	37	37	0	33	1	0	0	3	0	0	25	37	11	5	0
Numerator	12	0	12	12	0	0	0	0	0	0	11	12	4	2	0
Denominator	49	37	12	45	1	0	0	3	0	0	36	49	15	7	0
Results	24.49%	0.00%	0.00%	26.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.56%	24.49%	26.67%	28.57%	0.00%

Program Information: NR - Natural Resource Management (nontraditional for Females) (high skill)

Remainder	24	24	0	22	0	0	1	1	0	0	15	24	4	1	0
Numerator	8	0	8	8	0	0	0	0	0	0	5	8	1	2	0
Denominator	32	24	8	30	0	0	1	1	0	0	20	32	5	3	0
Results	25.00%	0.00%	0.00%	26.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	25.00%	20.00%	66.67%	0.00%

	Totals	NT Males	NT Females	American Indian or Alaskan	Asian or Pacific Islander	Black-not Hispanic	Hispanic	White-not Hispanic	Ethnicity Unknown	Disability	PELL or BIA	Non-trad Gender	Displaced Home-makers	Single Parents	Limited English
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Program Information: NS - Network Technician Support (nontraditional for Females) (high demand) (high skill)

Remainder	7	7	0	7	0	0	0	0	0	0	4	7	1	0	0
Numerator	10	0	10	9	0	0	0	1	0	0	7	10	1	1	0
Denominator	17	7	10	16	0	0	0	1	0	0	11	17	2	1	0
Results	58.82%	0.00%	0.00%	56.25%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	63.64%	58.82%	50.00%	100.00%	0.00%

Program Information: OA - Office Administration (nontraditional for Males) (high demand)

Remainder	20	0	20	19	0	0	0	1	0	0	18	20	6	4	0
Numerator	1	1	0	1	0	0	0	0	0	0	1	1	0	0	0
Denominator	21	1	20	20	0	0	0	1	0	0	19	21	6	4	0
Results	4.76%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.26%	4.76%	0.00%	0.00%	0.00%

Totals/Results for Community College

Remainder	127	107	20	118	1	0	1	7	0	0	91	127	34	18	0
Numerator	33	1	32	32	0	0	0	1	0	0	26	33	7	6	0
Denominator	160	108	52	150	1	0	1	8	0	0	117	160	41	24	0
Results	20.63%	0.93%	61.54%	21.33%	0.00%	0.00%	0.00%	12.50%	0.00%	0.00%	22.22%	20.63%	17.07%	25.00%	0.00%