

**Approved Minutes of the
Machine Tool
State Apprenticeship Advisory Committee**

October 17, 2018
Fox Valley Technical College
Appleton, WI

Members Present	Organization / Employer
Haban, Eric (Co-Chair)	LDI Industries
Heins, Ken	KLH
Johnson, Greg	PowerTest
Rainey, Tony	Master Lock Company
Schneider, Roque	Mercury Marine
Members Absent	Organization / Employer
Bates, Dan	Rexnord
Brockelman, Doug	Stanek Tool Corp
Dennis, Mark (Co-Chair)	Fox Valley Tool & Die
Consultants and Guests	Organization / Employer
Cattelino, Mike	Fox Valley Technical College
DuBenski, Scott	Wisconsin Technical College System
Grunewald, Jeff	Lakeshore Technical College
Haka, Stephanie	Bureau of Apprenticeship Standards
Janecek, Ed	Waukesha County Technical College
Johnson, Joshua	Bureau of Apprenticeship Standards
Kitchen, Jim	Fox Valley Technical College
Krowas, Erick	Fox Valley Technical College
Mayek, Mandy	Mid-State Technical College
Metko, Katie	Northcentral Technical College
Perkofski, Lisa	Bureau of Apprenticeship Standards
Smith, Owen	Bureau of Apprenticeship Standards

1. The meeting was called to order at 10:00 a.m. by Co-Chair Eric Haban in conformance with the Wisconsin Open Meeting Law.
2. A sign-in sheet was distributed. A quorum was present.
3. The committee reviewed the current roster. The committee noted one member's employer is out of business and the committee needs representatives from the west or northwest section of the state.
4. **Old Business**

a. Review the follow-up items from previous meeting

The minutes were approved as written.

ii. For action: related instruction hours for Tool & Die Maker

Owen reviewed that the state committee had tentatively approved reducing the minimum required hours of related instruction for Tool and Die Maker from 576 to 512 but had not officially approved the motion due to the lack of a quorum. He asked the committee to approve the motion and the committee and technical college consultants to recommend the date the change would take effect.

Josh Johnson reiterated that technical colleges and sponsors have the discretion to exceed the minimum hours.

Action: *the committee approved the motion to reduce the minimum required hours of related instruction for Tool and Die Maker to 512 for all new contracts as of November 1, 2018.*

A committee member suggested the state committee should review the related instruction for Machinist and all other registered apprenticeships the committee oversees to ensure their hours of related instruction on the contract match what is delivered in the classroom. Owen suggested the committee could have a preliminary review at the 2019 spring meeting.

Action: *the committee agreed to review the minimum required hours of related instruction for all other trades it oversees at the 2019 spring meeting.*

iii. Additional advanced manufacturing apprenticeship to develop via WAGE\$?

Owen reviewed the Bureau had asked the committee for input on additional advanced manufacturing apprenticeships to develop through the WAGE\$ grant. The committee suggested several, such as CMM Technician, Inspectors, and Metrology, but did not prioritize them. He asked the committee to recommend the highest priority apprenticeship to develop. The need has to be documented and supported by employers so the apprenticeship, if developed, is likely to be used by many sponsors.

The committee recommended Industrial Metrology Technician. Metrology is the science of measuring. The occupation would combine inspecting machines and instruments with measuring to ensure the company is complying with legal standards. It would be a stand-alone occupation that even small businesses would need to embrace. The projected length would be three years.

The technical college consultants agreed; metrology is a "significant chunk" of the two-year associates degree program for many technical colleges. Converting the curriculum to related instruction would not be difficult.

The committee commented that the program, if developed, should be piloted in the Fox River Valley and Green Bay.

The committee asked what the development timeline would be. Josh explained that the Bureau first needs to solicit letters of support from potential sponsors, then submit a request to modify the grant to the U.S. Department Labor, receive its approval, and then begin the one-year development process. The total projected timeline could be two years. If the U.S. DOL denies the modification, the Bureau would ask the WTCS to consider funding the program using its annual curriculum budget.

Action: *the committee approved a motion to recommend the Bureau develop the Industrial Metrology Technician apprenticeship through the WAGE\$ grant. The Bureau will submit a request to the US DOL.*

b. Implementing revisions to CFR 29.30 (AA/EEO requirements)

Josh reported the Bureau has yet to receive guidance from the U.S. Department of Labor. The Bureau projects it will receive the guidance before the committee's 2019 spring meeting.

Attendees did not have questions or comments.

c. Federal grants to expand "registered apprenticeship"

Josh reviewed that the Bureau received three federal grants to expand registered apprenticeship in Wisconsin: WAGE\$ grant; state expansion grant; and state accelerator grant.

i. WAGE\$

WAGE\$ has met or exceeded all performance metrics except one: enrollments in new registered apprenticeships developed through the grant; enrollments in industries' first registered apprenticeship are commonly slow because employers are unfamiliar with the training method.

WAGE\$ expanded existing apprenticeships in advanced manufacturing to additional technical colleges, increased enrollment of women and minority apprentices, and developed new registered apprenticeships in advanced manufacturing, health care, and information technology.

Attendees did not have questions or comments.

ii. State expansion grant

Josh reported that the expansion grant is proceeding well, too. The initial award was \$1.8 million; the Bureau recently received an additional \$1.8 million award; and the Bureau may receive a third award next fiscal year. The grants two goals are to expand registered apprenticeship in the biotechnology, construction, and financial services industries, and to increase the recruitment and retainment of women and minority apprentices.

The first goal is proceeding well: development of the new Biotechnology Laboratory Support Technician registered apprenticeship began this year; and the official launch of the new Financial Services Professional occurred this summer.

The second goal is proceeding slowly. Bureau management met with several major construction contractors to discuss how to approach increasing recruitment and retainment of women and minorities. The Bureau was informed that major projects are meeting their recruitment and

retainment requirements and there is "no problem." The Bureau will re-strategize this winter; it views recruiting and retaining women and minorities not as a failure of local committees but as an opportunity for them. Therefore, the Bureau is very focused on providing local committees with the resources they need to conduct intentional outreach ahead of hiring season.

Last, the expansion grant will fund a new outreach campaign which will be launched during National Apprenticeship Week. The campaign features, in part, a new "A" logo that does not include the wrench and pencil that define the current logo. The new logo was inspired by much input from stakeholders that registered apprenticeship seems to be intended only for construction and manufacturing occupations. The Bureau believes the new logo will convey the breadth of sectors that currently utilize and can utilize registered apprenticeship in the future.

A committee member commented that the number of career clusters that offer youth apprenticeships has grown from six to 26; the options create competition, which makes recruiting difficult.

iii. State Accelerator Grant

Josh reported the Bureau continues to use the state accelerator grant to increase its capacity to administer the state's registered apprenticeship system. The accelerator grant has been used to train ATRs in consultative sales and AA/EEO and to upgrade BASERS.

Attendees did not have questions or comments.

d. Presidential executive order to expand "apprenticeship"

Josh updated attendees on the implementation of the presidential executive order to expand "apprenticeship." He reviewed that the order refers to "industry-recognized apprenticeship programs," or IRAPs, not registered apprenticeships. These programs are being developed in response to nationwide industry concern that the process to sponsor a registered apprenticeship program is too lengthy and difficult. Josh acknowledged that the process to become a registered apprenticeship sponsor is lengthy and difficult in many states, because the states lack the staff and support. Wisconsin is among a small percentage of states with robust staffing and resources.

He concluded by reminding attendees that "much still remains to be seen," and Wisconsin's registered apprenticeship program will continue to operate "business as usual." By state law, the Bureau must approve and register all apprenticeship programs in the state.

A committee member concurred that many states' apprenticeship programs lack the quality of Wisconsin's, so those states may benefit from this order.

e. Bureau of Apprenticeship Standards Electronic Registration System (BASERS)

Josh reported that implementing BASERS is proceeding very well. Many sponsors have reported that it functions easily and intuitively, and they value the ownership and direct access it provides. He reminded attendees that BASERS is optional for sponsors. The Bureau trusts sponsors will like it.

Josh informed attendees that BASERS now includes several new functions: sponsors can now request reassignments, un-assignments, and completions. Soon, sponsors will be able to request cancellations, too. These functions will be immediately beneficial, but quantitative data on their efficiencies will not be available until next year.

The committee asked if Bureau would consider assigned apprentices' identification numbers rather than using their social security number. Younger generations are leery about providing their SSNs. Josh thanked the committee for bringing that to his attention. The Bureau will research the matter.

f. Apprenticeship Completion Award Program

Josh briefly reviewed the purpose of the program and the respective totals for approved reimbursements and denied reimbursements. He noted that the total for denied reimbursements is substantially large because many apprentices request more than the maximum reimbursement. He clarified that the program will conclude on June 30, 2019.

An attendee asked whether ACAP can be requested and tracked through BASERS. It cannot, Josh answered. ACAP is a separate, temporary program, so it is not built into the long-term database.

g. Other

Attendees had no further questions or comments.

5. New Business

a. 2018 National Apprenticeship Week

Josh informed attendees that National Apprenticeship Week will be November 12-18, 2018. He reviewed that Wisconsin placed fifth nationally in the number of events held last year, with 46 events. The first-place state boasted 55 events.

This year, the Bureau wants to exceed its prior total and take first place. The potential to do so is high because prior year's events generated much interest and the Bureau began planning this year's events much earlier. For example, the Bureau notified high schools 30 days in advance, so they could schedule buses to transport students. In addition, the Bureau notified additional partners, such as workforce development boards, career and technical education staff, high school guidance counselors, and correctional facilities.

He reviewed that National Apprenticeship Week is open to all stakeholders, so the Bureau encourages all stakeholders to host an event independently or collaboratively. Prior years' events included substantial support from construction training centers and technical colleges. This year's event will highlight the YA-to-RA bridge and registered apprenticeships in several new industries.

He encouraged attendees to notify the Bureau of events so they can be included on either the public or private calendar. He concluded by stating if the U.S. Department of Labor would discontinue coordinating the event nationally, the Bureau would likely host a Wisconsin version.

The committee asked if the week will include an Apprenticeship LEADERS event. Maybe, Josh replied; there has to be sufficient progress on related projects to warrant a meeting.

b. 27th Biennial Wisconsin Apprenticeship Conference

Josh reported the conference will be held March 12-13, 2019, at the Madison Marriott West in Middleton, WI. The conference theme will be, "Workforce Next." The 30 workshops and five speakers will focus on recruiting and retaining underutilized populations. The conference will not have an Apprenticeship Expo. BAS will mail "Save the Date" notices soon.

Attendees did not have questions or comments.

c. BAS website changes

Josh shared that the Bureau revised its homepage to be more user-friendly for applicants. The include the following: a quick-search menu for registered apprenticeships, by occupation or industry; clearly identifiable navigation boxes for each user group, e.g. career seeker, employer, and current apprentices and sponsors; and less text, more graphics. He added that the Bureau may add sponsor logos to the website, as suggested by a state manufacturing committee.

The committee strongly encouraged the Bureau to add sponsors' logos to the website as an important component on bridging youth apprenticeship to registered apprenticeship.

d. BAS personnel changes

Josh reported the following changes. Kathy O'Sullivan, apprenticeship training representative (ATR) for LaCrosse, retired; Milton Rogers was hired in her place. Rachell Faber, ATR for Eau Claire, and Matt White, policy analyst in Madison, accepted external positions; their replacements are projected to be hired in early 2019. The Bureau received state funding for three additional ATRs, which will focus on the manufacturing sector. The first, in Wausau, was filled by Stephanie Haka. The remaining two, in Appleton and Milwaukee, will be hired early 2019.

Attendees did not have questions or comments.

e. Other

The committee asked what's happening between Pathways Wisconsin and youth apprenticeship; the two programs seems like a perfect opportunity collaborate on career and technical education in the K-12 space. Josh replied that he is unaware of the topic. Registered apprenticeship, youth apprenticeship, and Pathways Wisconsin are separate entities; they do partner and collaborate but are not always aware of what the others are doing.

Attendees had no further questions or comments.

6. WTCS Update

Scott DuBenske distributed a table of related instruction by trade and technical college.

7. Review of Program Participants

Program participants included 575 apprentices and 249 sponsors with a contract in active or unassigned status as of October 1, 2018.

8. The next meeting is tentatively scheduled for Wednesday, May 15, at 10:00 a.m. at Fox Valley Technical College.
9. The meeting was adjourned at 12:10 p.m.

*Submitted by Owen Smith,
Bureau of Apprenticeship Standards*

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State of Wisconsin
Department of Workforce Development
Scott Walker, Governor
Ray Allen, Secretary
Chytania Brown, Division Administrator

October 10, 2018

TO: State Machine Tool Apprenticeship Advisory Committee Members and Consultants

FROM: Owen Smith, Bureau of Apprenticeship Standards
608-266-2491; Owen.Smith@dwd.wisconsin.gov

SUBJECT: **State Machine Tool Apprenticeship Advisory Committee Agenda**

DATE: **Wednesday, October 17, 2018**

TIME: 10:00 a.m.

PLACE: Fox Valley Technical College, DJ Bordini Center
Room BC112
5 N Systems Dr
Appleton, WI 54914

TENTATIVE AGENDA

1. Call the meeting to order.
2. Distribute the sign-in sheet.
3. Review the roster.
4. **Old Business**
 - a. Review the follow-up items from previous meeting
 - i. **For action:** approve the minutes
 - ii. **For action:** hours of related instruction for Tool & Die Maker
 - iii. Additional advanced manufacturing occupations expanded by WAGE\$
 - iv. EDM Exhibit A
 - b. Implementing revisions to CFR 29.30 (AA/EEO requirements)
 - c. Federal grants to expand "registered apprenticeship"
 - d. Presidential executive order to expand "apprenticeship"
 - e. Bureau of Apprenticeship Standards Electronic Registration System (BASERS)
 - f. Apprenticeship Completion Award Program
 - g. Other
5. **New Business**
 - a. 2018 National Apprenticeship Week
 - b. 2019 27th Annual Biennial Wisconsin Apprenticeship Conference

5. **New Business, continued**
 - c. BAS website changes
 - d. BAS personnel changes
 - e. Other
6. WTCS Update
7. Review the program participants.
8. Schedule the next meeting.
9. Adjourn.



WAGE\$ Grant Metric Update

Fall Committee Updates

9-4-18

Background

Wisconsin Apprenticeship Growth and Expansion Strategies (WAGE\$) is part of the American Apprenticeship Initiative - a competitively awarded federally funded 5-year grant being implemented between October 1, 2015, through September 30, 2020. WAGE\$ will accelerate the introduction of Registered Apprenticeship into Advanced Manufacturing, IT, and Healthcare statewide. The overarching goal is to sign on at least 1,000 apprentices into the WAGE\$ occupations by the end of the grant. Grant partners include the Wisconsin Technical College System and the eleven workforce development boards (WDBs.) Each WDB supervises at least one apprenticeship liaison who coordinates local activities and works with ATRs to conduct business outreach.

WAGE\$ trades/occupations (as of August 2018)

1. Advanced Manufacturing (all Adv Mfg trades are completed = no additional occupations being developed for WAGE\$)
 - Industrial Manufacturing Technician (existing before WAGE\$)
 - Maintenance Technician (existing before WAGE\$)
 - Welder – Fabricator (existing before WAGE\$)
 - Welder – Automated Welding (existing before WAGE\$)
 - Mechatronics Technician (newly created under WAGE\$)
2. Information Technology (IT) – all newly created under WAGE\$
 - Software Developer (completed, NCWWDB/Midstate begins fall 2018)
 - IT Service Desk Technician (launched August 2018; Waukesha Technical College is lead college. Program will become available statewide through interested technical colleges)
 - Data Analyst (anticipated launch Fall 2018; Chippewa Valley Technical College is lead college. Program will become available statewide through interested technical colleges)
 - IT #4 = TBD
 - IT #5 = TBD
3. Health Care
 - Community Health Worker (was developed by Dept of Health Services; considered newly created; no participation to date)
 - Pharmacy Technician (development in progress; expected completion late 2018; lead undetermined)
 - Medical Assistant (development in progress; expected completion fall 2018; UW-Health is leading development and will conduct the training which will be open to apprentices from the three large healthcare providers in the Madison area; the program will become available statewide through interested technical colleges following resolution of a certification issue.

Status of Main Grant Deliverables

The following table shows the status of the main grant deliverables. Statistics are usually calculated quarterly and after allowing time for parties to input their information. The statistics below were reported for the period ending August 24, 2018, except as otherwise noted. It is expected that the rate of increase in programs and sponsors will increase as more programs are developed and offered.

As of August 24, 2018:

*Proposed through 9/30/18 and Actual
as of 8/24/18 unless otherwise noted*

Capacity Building & Employer Metrics	To Date		Total proposed to end of grant
	Proposed to end of Year 3 ¹	Actual to 8/24/18	
Total # of Employers to Benefit from the Grant Program	130	129	383
Total # of Promotional/ Outreach Activities to Employers (through June 30, 2018)	1,975	1,997	3,000
Total # of Newly Registered American Apprenticeship Programs (new trades developed with grant funds)	49	24 ²	100
Total # of Existing Registered Apprenticeship Programs to be Expanded (existing trades when the grant began but the trade having new apprentices in the grant performance period)	59	112 ³	90
Employment & Training Metrics			
Total # of Participants to Receive Services Under this Grant (e.g includes participants served in pre-apprenticeship, apprenticeship, and by other grant activities) – through 6/30/18	4800	46,454	10,000
Total # of New Apprentices Registered ⁴	330	358	1,000

¹ Year 3 ends 9/30/18

² As of 8/24/18, there were 24 sponsors for Mechatronics Technician and 57 Mechatronics Technician apprentices with signed contracts. Although Software Developer was completed, no apprentices had signed contracts. The number of new sponsors and programs does not reflect a new IT Service Desk Technician sponsor and apprentice signed after the report was generated.

³ Count is the best available considering manual process of removing duplicate sponsor/programs.

⁴ Count is for apprentices, not contracts, as of 8/24/18. This number was calculated by # of contracts less the # of transferred contracts from a WAGE\$ occupation to another WAGE\$ occupation or a new/different sponsor.

WAGE\$ Trades and Contracts by Technical College		
Report Total: 365 contracts		
Technical College	# contracts	Trade
Blackhawk Technical College - Milton Campus - 22 Contracts		
	13	Mechatronics Technician
	8	Maintenance Technician
Chippewa Valley Tech. College - Chippewa Falls - 5 Contracts		
	5	Welder - Fabricator
Fox Valley Technical College - 59 Contracts		
	59	Maintenance Technician
Fox Valley Technical College Local 400 - 2 Contracts		
	2	Maintenance Technician
Gateway Technical College-Sturtevant - 8 Contracts		
	8	Maintenance Technician
Lakeshore Technical College - 100 Contracts		
	45	Industrial Manufacturing Technician
	44	Maintenance Technician
	11	Mechatronics Technician
Madison College - 12 Contracts		
	12	Maintenance Technician
Madison College-Truax Campus - 1 Contract		
	1	Maintenance Technician
Mid-State Technical College - 7 Contracts		
	7	Maintenance Technician
Milwaukee Area Technical College - 2 Contracts		
	2	Maintenance Technician
Nicolet Area Technical College - 2 Contracts		
	2	Welder - Fabricator
Northcentral Technical College - 24 Contracts		
	24	Maintenance Technician
Northeast Wisconsin Technical College - 19 Contracts		
	10	Maintenance Technician
	3	Welder / Automated Welding
	6	Welder - Fabricator
Southwest Wisconsin Technical College - 9 Contracts		
	9	Mechatronics Technician
Waukesha County Technical College - 78 Contracts		
	26	Maintenance Technician
	6	Welder - Fabricator
	24	Industrial Manufacturing Technician
	22	Mechatronics Technician
Western Technical College - 15 Contracts		
	15	Maintenance Technician

WAGE\$ Contracts by Trade through August 24, 2018

Trade Name	Count	Female	Minority & Race/Ethnicity*		
			Minority**	Black	Hispanic
Report Total:	365	10 (3%)	44 (12%)	13 (4%)	17 (5%)
Industrial Manufacturing Technician	68	6 (9%)	18 (26%)	9 (13%)	6 (9%)
Maintenance Technician	218	3 (1%)	21 (10%)	4 (2%)	7 (3%)
Mechatronics Technician	57	1 (2%)	4 (7%)	()	3 (5%)
Welder / Automated Welding	3	()	()	()	()
Welder - Fabricator	19	()	1 (5%)	()	1 (5%)

WAGE\$ Contracts by Trade through May 15, 2018

Trade Name	Count	Female	Minority & Race/Ethnicity*		
			Minority**	Black	Hispanic
Report Total:	289	10 (3%)	36 (12%)	13 (4%)	13 (4%)
Industrial Manufacturing Technician	68	6 (9%)	18 (26%)	9 (13%)	6 (9%)
Maintenance Technician	165	3 (2%)	14 (8%)	4 (2%)	4 (2%)
Mechatronics Technician	40	1 (3%)	3 (8%)	()	2 (5%)
Welder / Automated Welding	3	()	()	()	()
Welder - Fabricator	13	()	1 (8%)	()	1 (8%)

WAGE\$ Contracts by Trade through August 24, 2017

Trade Name	Count	Female	Minority & Race/Ethnicity*		
			Minority**	Black	Hispanic
Report Total:	169	4 (2%)	24 (14%)	11 (7%)	7 (4%)
Industrial Manufacturing Technician	37	2 (5%)	12 (32%)	9 (24%)	2 (5%)
Maintenance Technician	115	2 (2%)	10 (9%)	2 (2%)	3 (3%)
Mechatronics Technician	3	()	1 (33%)	()	1 (33%)
Welder / Automated	3	()	()	()	()
Welder - Fabricator	11	()	1 (9%)	()	1 (9%)

All ACAP Reimbursement Requests Processed (Time Period) - Summary

Apprenticeship Completion Award Program (ACAP)

Bureau of Apprenticeship Standards

Division of Employment and Training

9/5/18 08:12 AM

Filters Applied: Determination Date between 6/11/18 and 9/5/18, Fiscal Year(s)= FY19

Type	Fiscal Year	# of RRs	\$Approved	\$Denied
Year One	19		\$45,520.37	\$236,907.58
Year One Totals		208	\$45,520.37	\$236,907.58
Completion	19		\$67,315.84	\$421,393.17
Completion Totals		124	\$67,315.84	\$421,393.17
Report Totals		332	\$112,836.21	\$658,300.75



WTCS System-Wide Activity Update for August 2018

- **WTCS Apprenticeship Enrollment Trend:** For the 2017-18 academic year, WTCS enrollments for all apprenticeship programs increased from 6528 to 6783 unduplicated, and 7124 to 7279 duplicated, students. That is a 3.9% and 2.2% increase, respectively, for the 2017-18 year, as compared to 6.5% and 7.4% for the prior year.
- **WTCS Program Expansion under the WAGE\$ grant:** From March 2016 through July 2018, nineteen apprenticeship program approvals were obtained by various WTCS District for WAGE\$ targeted programs. Currently, 12 out of 16 Districts offer instruction for one or more of these programs.
- **Great Lakes Tools of the Trade/WTCS Apprenticeship Scholarships:** The Great Lakes Higher Education Foundation Board has once again committed to awarding 200 scholarships at \$1500 each for industrial and construction sector apprentices for the 2018-19 academic year.
- **Active WTCS-BAS Apprenticeship Programs, By Sector, Occupation, and College:** The master chart of all apprenticeship programs with related instruction offered through the WTCS can be found here via the following link. "Active" is defined as approved programs with enrollments in the past two years.
<https://mywtcs.wtcsystem.edu/wtcsinternal/cmspages/getdocumentfile.aspx?nodeguid=2b3fe9c1-681d-4ceb-a612-f474b04aaa8b>

State Committee Report State Machine Tool Committee

This summary counts employers and apprentices with a contract active or unassigned on 10/1/2018 in trade(s) associated with this committee.

Report is based on apprentice contracts where:

- Status is 'Active' or 'Unassigned'.
- Contract sector is 'Industrial' or 'Service'.
- Contract trade code matches a trade code assigned to committee.
- Contract sponsor is the employer.

Note: Employers with contracts in more than one trade or committee can cause Column #3 totals at the Committee or State level to deviate from the summed total of the individual trade or committee rows.

Trade	Total # of Sponsors	Total # of Apprentices	Of Total Apprentices in Column 3, # who are...			
			Minority		Females	
			#	%	#	%
1	2	3	4	5	6	7
Report Total	249	575	33	5.7	9	1.6
CNC Machinist (260028002215)	3	6	1	16.7	0	
CNC Technician (260936001001)	3	3			0	
Electrical Discharge Machining Technician (260938001003)	3	3			0	
Electrical Discharge Machinist (260938001001)	1	1			0	
Machinist (260028002201)	90	201	14	7.0	3	1.5
Mold Maker (Die Cast) (Plastic) (260128003001)	22	44	3	6.8	0	
Patternmaker All Around (269328001401)	2	8	1	12.5	0	
Tool And Die Maker (260126001001)	137	274	14	5.1	5	1.8
Tool Maker (260128004201)	18	35	1	2.9	1	2.9