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Details: Public Hearing: Audit Report 07-2: An Evaluation: Personnel Policies and Practices, Wisconsin Technical College System

(FORM UPDATED: 08/11/2010)

WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

2007-08

(session year)

<u> Ioint</u>

(Assembly, Senate or Joint)

Committee on Audit...

COMMITTEE NOTICES ...

- Committee Reports ... CR
- Executive Sessions ... ES
- Public Hearings ... PH

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... Appt (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... CRule (w/Record of Comm. Proceedings)
- Hearing Records ... bills and resolutions (w/Record of Comm. Proceedings)

(ab = Assembly Bill)

(ar = Assembly Resolution)

(ajr = Assembly Joint Resolution)

(sb = Senate Bill)

(**sr** = Senate Resolution)

(sir = Senate Joint Resolution)

Miscellaneous ... Misc





Sabbatical # 1: Chippewa Valley Medical Technology Instructor Tina Salava took a sabbatical to complete her bachelor's degree in adult education. (2 semesters)

Sabbatical #2: Former Gateway College President Borden took a sabbatical of less than the 30 days allowed under his contract during our audit period. The sabbatical was taken to write a memo on college management.

Sabbaticals #3 - 9: A total of seven Madison Area faculty took sabbaticals:

- Social Sciences Instructor Kenneth Kowalski worked on a La Follette Institute project researching DNR's Green Tier approach to cooperative industry-government environmental controls. (1 semester)
- English Instructor Anna Purnell's researched on-line teaching methods. (1 semester)
- Science Instructor David Shaw developed software for teaching chemistry (specifically "stoichiometry" or chemical measurement techniques). (1 semester)
- Art Instructor Marla Brenner's explored graphic design and new art techniques. (1 semester)
- Adult Basic Education Instructor Sharon Fallon reviewed workplace education programs in New Zealand. (Less than 1 semester)
- Social Sciences Instructor J. Mark Thomas revised a novel and developed a "reader's theatre" examining contemporary American life based on Aristotle's philosophy. (1 semester)
- Instructor of Diesel and Heavy Equipment Aaron Halverson attended industrial manufacturer's training courses on current diesel technology. (1 semester)

Sabbaticals #10-15: A total of six Milwaukee Area Faculty took sabbaticals:

- Sign Language Instructor Vicki Lynn Johnson completed work on a master's degree in English (emphasis on English as a 2nd Language instruction issues) (2 semesters)
- English Instructor Barbara Anderson worked on a Children's book and completed classes for her teaching certification standard. (2 semesters)
- Psychology Instructor Kathleen Kavanaugh completed a Master's degree program in Education.
 (2 semesters)
- Accounting Instructor Rodger Sands started a personal business and worked to incorporate that experience into his instructional curriculum. (2 semesters)
- Computer Science and Business Instructor Phillip Chimielewski worked on a PhD in Education. (2 semesters)

 English Instructor Yvonne McDonald worked on completing a graduate degree in English Studies. (1 semester)

Sabbaticals # 16-17: Two Northeast Wisconsin Faculty took the following sabbaticals:

- Physical Therapy Instructor Julie Seifert took a sabbatical to pursue a Doctor of Health Sciences Degree. (2 semesters)
- Economics Instructor Mary Beth Ascher took a sabbatical for graduate coursework in Economics. (1 semester)

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Sabbatical User	- 1	Keporting Kequirement	Actual Reporting Activity
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		Required to submit written reports on sabbatical progress	
		to College President within 30 days after start of	
		sabbatical, every 60-days during a sabbatical, and at the	We were told that all reporting requirements
1 Salava	Chippewa Valley	conclusion of sabbatical (including copy of transcript)	were waiyed for Salava
TOPOGRAPHICAL INCLUDING TO THE PROPERTY OF THE		Required to present a paper to the Gateway Board after	
2 Bordon	Gateway	each sabbatical.	One-page memo to Board
		Perform a presentation on sabbatical activities at College	
3 Kowalski	Madison Area	in-service training day	We were told that a presentation was made.
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4 Purnell	Madison Area	in-service training day	We were told that a presentation was made.
TO THE THE PROPERTY OF THE PRO	OFFICE AND ADDRESS OF THE PROPERTY OF THE PROP	Perform a presentation on sabbatical activities at College	
5 Shaw	Madison Area	in-service training day	We were told that a presentation was made.
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6 Brenner	Madison Area	in-service training day	We were told that a presentation was made.
		Perform a presentation on sabbatical activities at College	
7 Fallon	Madison Area	in-service training day	We were told that a presentation was made.
		Perform a presentation on sabbatical activities at College	
8 Thomas	Madison Area	in-service training day	We were told that a presentation was made.
		Perform a presentation on sabbatical activities at College	
9 Halverson	Madison Area	in-service training day	We were told that a presentation was made.
		Required to provide status report at end of 1st semester	No evidence of interim report, but submitted
		of sabbatical, submit transcripts and/or certification of	official sabbatical completion form and
10 Johnson	Milwaukee Area	accomplishment at end of sabbatical	transcript
Andreas and the second		Required to provide status report at end of 1st semester	No evidence of interim report, but submitted
		of sabbatical, submit transcripts and/or certification of	official sabbatical completion form and
11 Anderson	Milwaukee Area	accomplishment at end of sabbatical	transcript
		Required to provide status report at end of 1st semester	No evidence of interim report, but submitted
		of sabbatical, submit transcripts and/or certification of	official sabbatical completion form and
12 Kavanaugh	Milwaukee Area	accomplishment at end of sabbatical	transcript
		Required to provide status report at end of 1st semester	
		of sabbatical, submit transcripts and/or certification of	No evidence of interim report, but submitted
13 Sands	Milwaukee Area	accomplishment at end of sabbatical	official sabbatical completion form
		Required to provide status report at end of 1st semester	No evidence of interim report, but submitted
		of sabbatical, submit transcripts and/or certification of	official sabbatical completion form and
14 Chimielewski	Milwaukee Area	accomplishment at end of sabbatical	transcript
* **		Required to provide status report at end of 1st semester	
		of sabbatical, submit transcripts and/or certification of	No evidence of interim report or transcript, but
15 McDonald	Milwaukee Area	accomplishment at end of sabbatical	submitted official sabbatical completion form
16 Seifert	Northeast Wisconsin	No reporting requirements	Not applicable
17 Ascher	Northeast Wisconsin	No reporting requirements	Not applicable

Faculty Union Representation March 2006

Institution	Represented Full-Time Faculty ¹	Represented Part-Time Faculty	Non-represented Part-Time Faculty	Total Faculty	Percentage Represented
Blackhawk	106	0	141	247	42.9%
Chippewa Valley	252	16	98	366	73.2
Fox Valley	303	37	299	639	53.2
Gateway	287	0	215	502	57.2
Lakeshore	103	13	87	203	57.1
Madison Area	421	639	44	1,104	96.0
Mid-State	101	0	82	183	55.2
Milwaukee Area	614	581	0	1,195	100.0
Moraine Park	147	0	158	305	48.2
Nicolet Area	78	0	59	137	56.9
Northcentral	154	8	151	313	51.8
Northeast Wisconsin	225	23	323	571	43.4
Southwest Wisconsin	89	1	146	236	38.1
Waukesha County	185	427	0	612	100.0
Western	203	12	0	215	100.0
Wisconsin Indianhead	149	0	204	353	42.2
Total	3,417	1,757	2,007	7,181	72.1%

¹ All full-time faculty were represented by a union.

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LAST UPDATED: 12:48 ON Thursday, March 8, 2007.

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	11:20:09 03/08/07	6	. 10.0104	GE SYSTEM	SCHNICAL COLLE	A MARKET CAPITAL A A ANY OF		JVE702310
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		MAT	C.I.Þ				DIVISION	AREA
				108	FISCAL YEAR 2007-2008		alia Crioa	TNS
			ONAL AREA	ND INSTRUCTIONAL	>	INSTRUCT		
	11:20:09 03/08/0/ PAGE: . 9			(VE702310)	INSTRUCTIONAL AREA SYSTEM (VI		•	L d
		02	15.9999		WICCONCIN PROPULCAL COLLE	IECHNICAL COMMONICATIONS	a	708703310
		3 2	٠			ACTURATION SYSTEMS TECHNOLOGY	o o	004
		202	• 1		HEC		o ox	000
		្ឋ	٠			ELECTRICAL ENGINEERING TECHNOLOG	o	662
		02	•	35 RASKOVIC		ELECTRONICS FOUNDATION	œ	660
		07				ELECTRON MICROSCOPY TECHNICIAN	80	636
		04	٠			NANOTECHNOLOGY	00	635
		02	15.1203			COMPUTER HARDWARE TECHNOLOGY	ထ	631
		2 2				COMPOSITE TECHNOLOGY	0 0 (630
		3 5	15.0699	88 MACKEY		INDUSTRIAL MATERIALS	യാ	629
		2 6	•			AUTOMATED MANUFACTURING	20 0	628
		6	• 10			COTTOTIC & DECEMBER ACE ED	n co	626
		00	30.9999	88 MACKEY		QUALITY INTERDISCIPLINARY	00	625
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AVOCATIONAL	GENERAL STUDIES	STUDENTS WITH DISABILITIES	VISUALLY IMPAIRED	HEARING IMPAIRED	CAREER EDUCATION	ENGLISH AS A 2ND LANGUAGE	COMPUTER BASICS	SUCTAL SCIENCE	XXACING	BEALTH EDUCATION	SCHENCE	MUSIC & ARTS	MATHEMATICS	HISTORY	
10 BEST	48 JACKSON	48 JACKSON	34 VANDALL	34 VANDALL	48 JACKSON	34 VANDALL	48 JACKSON	48 JACKSON	48 JACKSON	48 JACKSON	48 JACKSON	48 JACKSON	48 JACKSON	48 JACKSON	
36.0101	32.0101	32.0199	32.0199	32.0199	32.0107	32.0109	11.0601	32.0199	32.0108	34.0100	32.0199	50.9999	32.0104	32.0199	
00	0	02	ព្	9	01	2	00	00	01	00	01	01	00	00	





Academic programs in this matrix are grouped into generic categories, so their official names might differ at some campuses. Consult campus admission offices and catalogs for complete information on programs and

requirements. Due to space limitations, not all submajors are displayed.

Key:

- M = Undergraduate degree major
- I = Major along w/ availability of certification for teachers & other school professionals
- 5 = Submajor program

Undergraduate

C = Submajor leading to a teacher certificate

Graduate and Professional Degrees

Each four-year university in the UW System grants master's degrees in certain fields. UW-Madison and UW-Milwaukee offer doctoral programs, and UW-Madison also offers professional degrees in medicine, law, pharmacy and veterinary medicine.

Major Exploration

Peruse **uwhelp.wisconsin.edu/majormania**, the searchable Website of UW System undergraduate and graduate programs.

View distancelearning.wisconsin.edu for information about UW System courses and programs available online and through other forms of distance education.

How Do I Get Help with Career Planning and Placement?

Visit uwhelp.wisconsin.edu/careers to help prepare for life after college. There's plenty of great information to help you think about majors and career choices. You can take a self-assessment, explore fact sheets about majors in the UW System, explore occupations related to your interests and abilities, visit Career Planning and Placement Office Websites in the UW System and much more. Also, visit the interactive College Major Validation site to find out about occupations related to a major.

While enrolled at a campus, be sure to visit the placement and career development office. You can take vocational and aptitude tests, receive career guidance, learn how to prepare a resume and fine-tune your interviewing skills. You can review job announcements, send your credentials to prospective employers and possibly arrange for on-campus interviews.

Career counselors will help guide you on a path to a successful and rewarding career (see career offices contacts on pages 48-49).

Agricultural & Natural Resources	Eau Claire	Green Ba	La Crosse	Madison	Milwauke	Oshkosh	Parkside	Platteville	River Fall	Stevens F	Stout	Superior	Whitewat
Agricultural & Applied Economics		Г		M					s				
Agricultural Business/Mgt				М				M	T				
Agricultural Engineering Technology								5	M				
Agricultural Journalism	1			М									
Agriculture Studies				-			-	Γ	M				
Agronomy				М				М	5				
Animal Science				М		_		М	М		-		
Biological Aspects of Conservation				М						S			
Conservation	1								М	T			
Conservation & Environmental Science	<u> </u>				М							П	ъ
Dairy Science				М				5	М		7		-76
Environmental Policy & Planning		М					10						
Environmental Sciences/Studies	5	м	S	s		М	5		М	T	21		\$
Farm Management								s	s				
Fisheries & Water Resources										М			
Food Science/Systems/Technology			9	М	W.				М		М		
Forestry				М						M	- 5		
Horticulture				М				М	М				
Land Use Planning						-			М	S			
Ornamental Horticulture					1			М	S				
Paper Science										М			
Poultry Science				М									
Reclamation, Environ & Conservation								м					
Resource Management	5	5			à	П				ī			
Soil & Waste Resources	П						-			М	п	コ	1
Soil/Crop Science				М			5	М	М	s		\neg	
Wildlife Ecology/Management		5	_	M						м			

Afro-American Studies		1		M	M	S							
American Indian Studies	М	5		S	S	Г		5	<u> </u>	S		s	T
Asian Studies			T	М	5	S				S			S
Canada - US Studies						S		1				Г	Г
Ethnic & Racial Studies			5	Γ	5	l	S	5	5	S	1	T	5
Global Studies	S	S		S	M		-			S	Г	Г	Г
International Peace Studies	1		Γ		5			1		5		S	
International Studies	S	5	5	М	M	М	M	М	M	М	5	S	M
Jewish Studies				М	S								Г
Languages & Cultures of Asia			Γ	M	-			T-	117		_		_
Latin Amer, Carib & Iberian Studies			_	M								Г	Г
Latin American Studies	1		S		S	5		_	-	5	_		s
Religious Studies	T	5		M	M	М				S			
Russia & East European Studies	S			5			-			S	1	Г	
Scandinavian Studies	11			M	5								
Women's Studies	M	S	S	М	M	5	S	5	5	5	s	s	M

Applied Science								ĺ			T	1	
Aquatic Science	S	Г	5	1	1	Γ		Γ		5		5	5
Astronomy - Physics		Γ	5	M	5		Г		Г	5			T
Atmospheric & Oceanic Sciences		Г		M	M			Γ					T
Bacteriology				M	1			T		1	1		
Biochemistry			М	М	М		5	5	S			\$	1
Biochemistry/Molecular Biology	M	S				Ī	T	l					T
Biology	T	T	1	1	M	T	1	T	Ī	T	5	T	T
Biotechnology					5			S	M	S	5		5
Botany		S	<u> </u>	M				5		5			Г
Chemistry	ī	ī	T	T	M	T	M	ī	T	T	5	ī	T
Chemistry Course		Г		м	M						-	-	
Chemistry with Business Emphasis	м		s										
Earth Science	T	T	C	Ť	Г	ī	5		C	C			C
Entomology			\vdash	М			1						-



	Eau Claire	Green Bay	La Crosse	Madison	Milwaukee	Oshkosh	Parkside	Platteville	River Falls	Stevens Point	Stout	Superior	Whitewater
General Science	C	C	T					T	C	ī	1		T
Genetics	18			M					Į,	Г			
Geology/Geophysics	T			M	M	T	T	T	1	5			5
Human Biology		M		Г				_		-			
Hydrogeology/Water Chemistry	S				5	5	5		5				
Medical Microbiology & Immunology			-	M	1								
Microbiology	5		M		5	M				5			
Molecular Biology	M		5	М		S		s	11				
Molecular Biology & Bioinformatics	. 8			Γ			T				5		
Natural Science				T		7		_		ī			
Nutritional Sciences		5		M	5			Γ		s	H		
Pharmacology & Toxicology			-	M						_			
Physics	Ī	C	T	ī	M	Ť	T	-	T	ī	5	5	1
Plant Pathology				M									
Polymer Chemistry									5	5			
Science, Broad Area	C	C	ī	Γ		(C	ī	ī	7	ī	T	
Zoołogy		s		M				s		s		Г	

Accounting	M	M	M	М	M	M	S	M	M	M	1	M	M
	5	in	1974	M	M	177	3	 	IFT	5	5	-	100
Actuarial Science		ļ	<u> </u>	m		ļ.,	-	<u> </u>	ļ	<u> </u>	-	١	-
Business Administration (1)	М	М	5	_	S	S	M	M	M	M	M	M	M
Business Administration/Economics		L		L_		L	_	M		L			
Business for Non-Business Majors		L	S	S	L			L_					
Economics	1	T	M	T	1	M	1	M	1	T	C	M	1
Entrepreneurship & Small Business	5			5		S							S
Finance	M	5	M	М	M	M	S	S	5			5	M
Golf Enterprise Management											M		
Graphic Communication Management		Г		Г		Г					M		
Hotel, Restaurant & Tourism Mgt			6		Ι.						M	Г	
Human Resources Management	S		5	М	M	M	5	S			5		M
Information Science/Resources		M		Γ	M		Ш						Г
Information Systems	M		M	М		Γ						Г	
Information Technology Infrastructure				_		1		Г		Т		Γ	M
Integrated Science-Business		Г		Γ						1	П		М
International Business	5	Г	M	M	M	5		S			5	S	5
Management	M	S	M	М				S	S	Г	M	5	M
Management Information Systems	M		M		M	М	M	5	Œ,	Г		M	M
Managerial Accounting	-	Г	93	Г				-	Г	М		_	
Marketing	M	5	M	М	M	M	S	5	5		T	5	M
Operation/Production Management	5	Г		М	M	M		5		Г	S		M
Real Estate & Urban Development	ă,			М	33				9/			Г	5
Risk Management & Insurance	1	1	5	M			-						5
Service Management	1-	-			-	_	-		-	1	M		5
Transportation & Logistics Mgt	1			\vdash		<u> </u>	_	\vdash	-			м	

Communication & Letters

Advertising	\$				5	S			.10				S
Broadcast Journalism/Production	S	S					2	5	Ç	S			T
Communication Technologies Mgt		Γ		T				М	Г	1	M		Γ
Communication/Comm Arts (2)	M	T	M	M	M	T	T	M	1	M	C	М	ī
Electronic Media		5	П	Τ		Г	П			Γ			
English	1	T	T	1	T	T	T	T	T	T	5	T	T
Journalism	М	5		M	5	T		C	1		S	s	T
Journalism & Mass Communication					M				100		Г		
Marketing Communications			1		-				M			1	
Mass Communications	M	S		Г	18				5	5		5	
Multimedia Digital Arts					5	Γ		Г		M	5		M
Philosophy	M	M	M	M	М	М	M	M	5	м	5	S	5
Public Relations	5	5	5		\$	5		5		S	S		5
Radio-TV-Film	S	s	5	S	5	M			C	5			Г
Technical Communication				1							М		Г
Writing, Creative	S	S	S	s		5			s	S	5		
Writing, Professional/Technical	S	Ī	5				5	S	5	5	M	-	

Education-Related Studies

Agricultural Education				T		1		1	T	Π		П	Γ
Art Education	1	T	T	T	T	C	C	ī	T		ī	C	ī
Business Education									1	Ī	ī		T
Career, Technical Edu & Training				ļ —				l			ī		
Coaching	C	S	C			Г	\$	C	€	C	C	C	S
Community Education			T	<u> </u>	М		Г				T		Г
Driver Education/Safety				l		T		_			C		C
Early Childhood Education		C	(5			(C	ĭ	T	(1

	Eau Claire	Green Bay	La Crosse	Madison	Milwaukee	Oshkosh	Parkside	Platteville	River Falls	Stevens Point	Stout	Superior	Whitewater
Early-Mid Childhood (Elementary Ed)	T	T	T	1	S	1	C	T	T	1	T	T	Ţ
Education		T			T								
Educational Studies					M	Π	Г	Γ		Γ			
Family & Consumer Education		Γ		ī						1	Ŧ		
General Science	C	C	1					1	C	1	1		ī
Health & Human Performance	S							Г	T		5	S	
Interpreter Training		T-			C	Г							Г
Language Arts & Reading	C			ļ		C		1	C			C	
Marketing & Business Education								Γ			7		
Music Education, Choral		C	C	C	(C	(c	T	T		C	C
Music Education, General	C	C	1	١	1	ī	Ç	C	T	T		C	C
Music Education, Instrumental	C	C	(C	C	C	C	C	7	T		C	C
Natural Science				T		T				Ī			Г
Outdoor Education	7	Г		-					5	C			Г
Physical Education	T	5	T	ī		ī		T	ī	ī	5	ĭ	ī
Physical Education, Special	C		(C			C	C			П
Physical Science	T	Г							C	τ			C
Physics-Math	1												Г
School Health Education			T			C			C	C	C	C	C
Social Studies/Science	1	C	T	1		T	C	T	1	T		Ĭ	ī
Special/Exceptional Education	T		ſ	1	1	T		C		T	1	C	T
Teaching Engl/Spkrs Other Lang	C	C	C	C		T		C	T	C		Ī	C
Technology Education								T			T		

Engineering, Architecture & Applied Technology

					,		-			_		_
Architectural Studies	104				М					<u>L</u>		
Biological Systems Engineering		L		M								
Biomedical Engineering				М								
Chemical Engineering				М								
Chemistry-Engineering Dual Degree		Г	3									
Civil Engineering				М	M			M			П	
Computer Engineering				M			5		1		10	
Computer Sci-Engineer Dual Degree			3									Т
Construction		П	8	S			1				М	
Electrical Engineering (4)	35	Γ		М	М	Г	13	M		Г		
Engineering Mechanics	35			М		Г	1			Γ		
Engineering Physics		Г	Π	M				М				T
Engineering Technology											М	
Environ Sci/Civil Engin Dual Degree	100	5	Ц	Г	1			Γ		Γ		T
Environmental Engineering	-8			5	W.			М				
Geological Engineering	6	Г		М								T
Industrial Engineering		Г	ΙĠ	М	M	Γ		м			М	T
Industrial Technology Management						_	1	М		Γ	М	
Interior Architecture/Design	N			M				Г		М	S	
Landscape Architecture/Design				M					S	Γ	П	
Manufacturing Engineering	1		9	_	3					Ī	M	
Materials Engineering					M			T-	П		5	
Materials Science & Engineering	1			М							5	
Math-Engineering Dual Degree	(SI		3					Ī	М			1
Mechanical Engineering (7)			Į.	М	M			М	1		5	T
Naval Science		Г		M				Г		_	П	1
Nuclear Engineering				М			-		-			
Occupational Safety	Ų.	Ī		Г						5	\$	1
Packaging	3										М	
Paper Science			-					_		М		1
Physics-Engineering Dual Degree	6		6	6	M	6			6	-		T
Software Engineering								м			5	
Urban Planning Studies		S			S					5		\top

Family & Consumer Resources

Apparel & Textile Design/Manufact				M						М	
Consumer Science	T			М			1		1	T	
Family & Consumer Journalism				M					1		\top
Gerontology	5		S	S	S	5	T		S	S	1
Human Development & Family Studies	5	М	S	ī		T	1		ī	M	1
Human Ecology				М					7		
Retailing/Retailing Studies				М		_		1-1-		M	1

Fine & Applied Arts	Eau Claire	Green Bay	La Crosse	Madison	Milwaukee	Oshkosh	Parkside	Platteville	River Falls	Stevens Point	Stout	Superior	Whitewater
Art	1	ī	T	M	M	M	1	ī	M	M	М	1	T
Art History/Criticism	5	5		M	M		S			5		5	5
Arts Management	5	5	5				S			M			S
Communication & the Arts		M	12							Г			
Dance	5	S		1	T		П		C	S			¢
Digital Arts/Animation				Г			M			Г	S		Γ
Film/Film Studies		Г			M		5		5				Γ
Fine Arts	1	Г		_		T	A	ĭ	M	M	M		C
Graphic Design/Communication	5	S			S		S	5		s	5		5
Industrial Design											5		Γ
Inter - Arts		1	_		M	T			_		1		Г
Interior Architecture/Design	1			M			Γ			M	5		Γ
Music	1	T	T	M	M	M	ĭ	ī	M	T		ī	T
Music Literature		S				_				М	_		
Music Performance	S	S	5	M	5	5	5		5	M		5	S
Music Theory	5		5	5									S
Music, General		C	(C		C		ī			
Musical Theatre		5	5	Π	s		5		5	5			
Photography	Š	s	S		5					Г	S	5	
Theatre Design/Technical		\$	5		5			s		S			5
Theatre/Drama	T	M	M	T	T	ī	T	7	M	м		М	T

oreion	Languages	ĥ	Literature

African Languages & Literature				M		ĺ							
Chinese			Г	T									
Classical Humanities		T-	Г	T					Г				Γ
Classics		Γ		M	M			Г		Г	Г		
Comparative Literature			Г	M	M				5	5	Г	Г	
Foreign Language		Г		T				Ţ			S		
French/French Studies	T	T	1	T	T	T	T	C	C	T			Ť
German/German Studies	T	T	ī	ĭ	М	Ť	I	ī	C	T			T
Hebrew/Hebrew Studies				T	M			i					
Italian	100		1	ī	M								
Japanese	5			ī		s		_		S			
Latin				T	S				Г				
Linguistics	\$	5		M	М	s			T				
Modern Languages								Г	T				
Polish				ī									
Portuguese				ī									
Russian				T	T								
Spanish	T	T	ī	ī	T	T	T	ī	C	T	S	C	T

Health-Related Studies

Art Therapy									ĺ			5	
Athletic Training	M	Γ	M	S	S	М				М			
Biomedical Science/Health Science		5	S		5			Г	S	Г		T	
Communicative Disorders	M			М	М			Γ	М	M			М
Community Health Education			M				1		_		C	s	
Cytolechnology		5		S	5			5		5			
Dietetics		S		5		_		Γ		M	M		
Environmental & Public Health	M			Ī			T					Г	
Exercise & Sport Science		S	T	S	S		-				S		
Fitness			\$		S	<u> </u>	5	T			Г	1	
Health & Human Performance	5	1				Γ		T	ī	Г	S	5	
Health Care Administration	M				M		-				-	Ī	
Health Promotion					1	S	1-	5		M	C	S	_
Kinesiology	1		_	T	M			T-		-			
Medical Science				M				-		-			
Medical Technology/Clinical Lab Sci			M	M	M	М		ļ	-	М		_	
Music Therapy	M											_	-
Nuclear Medicine Technology	1		м										
Nursing	M	8		М	M	М	9						Г
Nursing (Collaborative Program)	М	М		М	M	М						-	_
Occupational Therapy					M				-5.				-
Physician Assistant				M									
Radiation Therapy			м									-	
Rehabilitation Psychology		Г		М				-			5		
Rehabilitation Technology	1										5		
Sport & Fitness Management	5		S		5		М				s		_
Therapeutic Recreation			М									-	
Vocational Rehabilitation	1										M		-

Interdisciplinary Studies	Eau Clain	Green Ba	La Crosse	Madison	Milwauke	Oshkosh	Parkside	Platteville	River Fall	Stevens (Stout	Superior	Whitewal
General Honors	5		5				Г	1					
General Studies (10)										M			
Humanities		М					M						
Individually Planned Major		М		T	M	M	Ī	M		M	_	M	M
Interdisciplinary Studies							M	S	5				
tiberal Studies (11)				S		M				M			M
Organizational Administration (12)					M	5							

Math, Computer & Information Sciences

Applied Math & Computer Science	Π				Γ		I				M		
Applied Math, Engineering & Physics	S	Г	Г	М	Γ		T	Г	1		Г		Г
Applied Mathematics & Physics	T			Π	M		T	Γ		Г		Γ	Г
Computational Science	5		5		1						_		Г
Computer Information Systems	Г	T	Г					5	M	M		-	M
Computer Science(s)	M	М	1	M	T	T	M	М	M	C	M	ī	S
Information Science/Resources (13)		M			M							Γ	
Information Technology Management				1					1		M	_	Г
Library Science/Educational Media	C				5	C				Г		€	C
Mathematics	T	T	ī	T	T	T	1	T	T	T	M	ī	T
Operations Research						s		Г					
Software Engineering	S					5		М	Г		S		Г
Statistics	5	s	S	M		5						_	
Web & Digital Media Development (14)	5						5			M	S		

Public Affairs & Service

Criminal Justice	М	Ι	S	5	M	М	M	М	5	Г	S	5	S
Environmental Law Enforcement						Г	1	Ī		S		1	_
Human Services			Г	T	1	М	Г	s		S	5	1	
Legal Studies	S		Г	M	S	S		Π	П	Γ		M	S
Military Science (ROTC)		5	S	Г	S	S		Г		S	ij.		
Paralegal								1				5	5
Public Admin & Policy Analysis	1					Г			1	M	U	Г	M
Public Administration		М	M			5	17		-			Г	S
Recreation Management			м	М						S	S	1	s

Social Sciences

Anthropology	5	5	C	T	Ţ	М	5		C	5		5	
Archaeological Studies			M	S		Г		T			H		
Cartography & Geographic Info Sys	S		\$	М		T			s	s		1	
Economics	T	T	T	1	T	М	T	М	ī	T	C	М	1
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Note:

Students may attend a two-year UW Colleges campus to complete general education requirements and most introductory courses for many of the majors listed before transferring to a degree-granting campus. Contact UW Colleges advisers and the degree-granting campus for specific requirements for a particular major.

Key:

- M = Undergraduate degree major
- Major along w/ availability of certification for teachers & other school professionals
- S = Submajor program
- C = Submajor leading to a teacher certificate

FOOTNOTES

- UW-Stevens Point degree program available at UW-Marathen Gounty and UW-Marathfeld/ Wood County.
- 2 UW-Milwaukee degree program available at UW-Baraboo/Sauk County, UW-Marinette and UW-Kichland.
- 3 Student attends UW-La Crosse for 3 years and UW-Madison for a years to earn a Chem. Comp Sci or Math degree from UW-L and an Engineering degree from UW-Madison.
- 4 UW-Platteville degree program available at UW-Pox Valley and UW-Rock County.
- 5 Student attends
 UW-Green Bay for 3 years
 and UW-Milwaukee for a
 years to earn an Environ
 Sci degree from UWGB
 and a Civil Engineering
 degree from UWM,
- 6 A student must attend two separate campuses to obtain the dual degree.
- 7 UW three life desired program as single at UW-Fox Valley.
- 8 UW-Green Bay nursing degree completion program for qualified registered nurses.
- UW-Milwaukee degree program available at UW-Parkside.
- 10 UW-Stevens Point degree program available at UW-Marathon County, UW-Marinette and UW-Marshfield/Wood County.
- 11 UW-Oshkosh degree program with an emphasis in organizational administration available at UW-Fond du Lac and UW-Fox Valley. UW-Whitewater degree program available at UW-Rock County.
- 12 UW-Milwaukee degree program available at UW-Baraboo/Sauk County, UW-Manitowoc, UW-Marinette, UW-Richland, UW-Rock County, UW-Sheboygan, UW-Washington County and UW-Waukesha.
- 13 UW-Milwaukee degree program available at UW-Baraboo/Sauk County, UW-Marinette, UW-Richland, UW-Sheboygan, UW-Washington County and UW-Waukesha.
- 14 UW-Stevens Point degree program available at UW-Marathon County and UW-Marshfield/Wood County.

Category	Program and Institution
Agricultural & Natural Resources	Agricultural and Applied Economics, UW-Madlson
Agricultural & Natural Resources	Agroecology, UW-Madison
Agricultural & Natural Resources	Agronomy, UW-Madison
Agricultural & Natural Resources	Animal Sciences, UW-Madison
Agricultural & Natural Resources	Comparative Biomedical Sciences, UW-Madison
Agricultural & Natural Resources	Conservation Biology & Sustainable Develop, UW-Madison
	Conservation Blology and Sustainable Development (Alternate name for Conservation
Agricultural & Natural Resources	Blology & Sustainable Develop), UW-Madison
Agricultural & Natural Resources	Dalry Science, UW-Madison
Agricultural & Natural Resources	Environmental Science and Policy, UW-Green Bay
Agricultural & Natural Resources	Environmental Studies (Alternate name for Natural Resources), UW-Stevens Point
Agricultural & Natural Resources	Food Science, UW-Madison
Agricultural & Natural Resources	Forestry, UW-Madison
Agricultural & Natural Resources	Horticulture, UW-Madison
Agricultural & Natural Resources	Land Resources, UW-Madison
Agricultural & Natural Resources	Life Sciences Communications, UW-Madison
Agricultural & Natural Resources	Natural Resources, UW-Stevens Point
Agricultural & Natural Resources	Soll Science, UW-Madison
Agricultural & Natural Resources	Veterinary Medicine, UW-Madison
Agricultural & Natural Resources	Water Resources Management, UW-Madison
Agricultural & Natural Resources	Wildlife Ecology, UW-Madison
	Wildlife Recreation and Nature Tourism Certificate, UW-River Falls
Agricultural & Natural Resources Area, Ethnic & Cultural Studies	Afro-American Studies, UW-Madison
	Languages and Cultures of Asia, UW-Madison
Area, Ethnic & Cultural Studies	Latin Amer., Caribbean, and Iberian Stud., UW-Madison
Area, Ethnic & Cultural Studies	Russian, E. European and Cent. Asian Stud., UW-Madison
Area, Ethnic & Cultural Studies	
Area, Ethnic & Cultural Studies	Scandinavian Studies, UW-Madison
Area, Ethnic & Cultural Studies	Southeast Asian Studies, UW-Madison
Area, Ethnic & Cultural Studies	Teaching English to Speakers of Other Languages, UW-Madison
Area, Ethnic & Cultural Studies	Technical Communications, UW-Madison
Area, Ethnic & Cultural Studies	Women's Studies/Gender Studies, UW-Madison
Biological & Physical Sciences	Applied Molecular Biology, UW-Parkside
Biological & Physical Sciences	Astronomy, UW-Madison
Biological & Physical Sciences	Atmospheric and Oceanic Sciences, UW-Madison
Biological & Physical Sciences	Bacteriology, UW-Madison
Biological & Physical Sciences	Biochemistry, UW-Madison
Biological & Physical Sciences	Biological Sciences, UW-Milwaukee
Biological & Physical Sciences	Biology, UW-La Crosse
Biological & Physical Sciences	Biology, UW-Oshkosh
Biological & Physical Sciences	Biometry, UW-Madison
Biological & Physical Sciences	Biomolecular Chemistry, UW-Madison
Biological & Physical Sciences	Biophysics, UW-Madison
Biological & Physical Sciences	Biophysics, UW-Madison
Biological & Physical Sciences	Biotechnology, UW-Madison
Biological & Physical Sciences	Botany, UW-Madison
Biological & Physical Sciences	Cancer Biology, UW-Madison
Biological & Physical Sciences	Cellular and Molecular Biology, UW-Madison
Biological & Physical Sciences	Chemistry, UW-Madison
Biological & Physical Sciences	Chemistry, UW-Milwaukee
Biological & Physical Sciences	Endocrinology-Reproductive Physiology, UW-Madison
Biological & Physical Sciences	Entomology, UW-Madison
Biological & Physical Sciences	Genetics, UW-Madison
Biological & Physical Sciences	Geology, UW-Madison
Biological & Physical Sciences	Geophysics, UW-Madison
Biological & Physical Sciences	Geosciences, UW-Milwaukee
Biological & Physical Sciences	Limnology and Marine Science, UW-Madison
Biological & Physical Sciences	Medical Genetics, UW-Madison
Biological & Physical Sciences	Medical Microbiology and Immunology, UW-Madison
Biological & Physical Sciences	Medical Physics, UW-Madison
Biological & Physical Sciences	Microbiology, UW-Madison
Biological & Physical Sciences	Molecular and Cellular Pharmacology, UW-Madison
Biological & Physical Sciences	Molecular and Environmental Toxicology, UW-Madison
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Catalan	Program and Institution
Category Richard & Dhysiaal Sciences	Nutritional Sciences, UW-Madison
Biological & Physical Sciences	Nutritional Sciences, UW-Stevens Point
Biological & Physical Sciences	Pathology, UW-Madison
Biological & Physical Sciences	Pathology, UW-Madison
Biological & Physical Sciences	Physics, UW-Madison
Biological & Physical Sciences	Physics, UW-Milwaukee
Biological & Physical Sciences	
Biological & Physical Sciences	Physiology, UW-Madison
Biological & Physical Sciences	Plant Breeding and Plant Genetics, UW-Madison
Biological & Physical Sciences	Plant Pathology, UW-Madison
Biological & Physical Sciences	Zoology, UW-Madison
Business	Accounting, UW-Whitewater
Business	Business Administration(Consortial Degree), UW-Eau Claire
Business	Business Administration, UW-Eau Claire
Business	Business Administration, UW-La Crosse
Business	Business Administration, UW-Milwaukee
Business	Business Administration, UW-Oshkosh
Business	Business Administration, UW-Parkside
Business	Business Administration, UW-Stevens Point
Business	Business Administration, UW-Whitewater
Business	Business, UW-Madison
Business	Business: Accounting, UW-Madison
Business	Business: Actuarial Science, UW-Madison
Business	Business: Finance, Investment and Banking, UW-Madison
Business	Business: General Management, UW-Madison
Business	Business: Information Systems, UW-Madison
Business	Business: International Business, UW-Madison
Business	Business: Management and Human Resources, UW-Madison
Business	Business: Marketing, UW-Madison
Business	Business: Operations and Technology Mgt, UW-Madison
Business	Business: Real Estate and Urban Land Econ, UW-Madison
Business	Business: Risk Management and Insurance, UW-Madison
Business	Business: Supply Chain Management, UW-Madison
Business	Certificate in Human Resource Management, UW-Whitewater
Business	Executive MBA, UW-Milwaukee
Business	Global MBA, UW-Oshkosh
Business	Industrial Relations, UW-Madison
Business	Information Systems, UW-Oshkosh
Business	Management Science, UW-Milwaukee
Business	Management, UW-Green Bay
	Management, UW-Milwaukee
Business Business	Management, UW-River Falls
	Master of Human Resources & Labor Relation, UW-Milwaukee
Business	
Rusinass	MBAUniversity of Wisconsin Consortium (Alternate name for Business
Business	Administration(Consortial Degree)), UW-Eau Claire
Business	Nonprofit Management and Leadership, UW-Milwaukee
Business	Project Management, UW-Green Bay
Business	Project Management, UW-Platteville
Business	Technology Management, UW-Stout
Business	Training and Development, UW-Stout
Communication & Letters	Advanced Study in Library Science, UW-Milwaukee
Communication & Letters	Communicating Arts, UW-Superior
Communication & Letters	Communication Arts, UW-Madison
Communication & Letters	Communication, UW-Milwaukee
Communication & Letters	Communication, UW-Stevens Point
Communication & Letters	Communication, UW-Whitewater
Communication & Letters	Creative Writing, UW-Madison
Communication & Letters	English, UW-Eau Claire
Communication & Letters	English, UW-Madison
Communication & Letters	English, UW-Milwaukee
Communication & Letters	English, UW-Oshkosh
Communication & Letters	Initial Instructional Library Media Specialist, UW-Milwaukee
Communication & Letters	Journalism and Mass Communication, UW-Madison

Category	Program and Institution
Communication & Letters	Library and Information Science, UW-Milwaukee
Communication & Letters	Library and Information Studies, UW-Madison
Communication & Letters	Mass Communication, UW-Milwaukee
Communication & Letters	Mass Communications, UW-Madison
Communication & Letters	Philosophy, UW-Madison
Communication & Letters	Philosophy, UW-Milwaukee
Education-Related Studies	Adapated Physical Education Add-On (860), UW-Stevens Point
Education-Related Studies	Admin Leadership & Supervision in Educ, UW-Milwaukee
	Administrative Leadership and Supervision in Education (Alternate name for Admin
Education-Related Studies	Leadership & Supervision in Educ), UW-Milwaukee
Education-Related Studies	Adult/University Level TESOL Graduate Certificate, UW-Milwaukee
Education-Related Studies	Agricultural Education, UW-River Falls
Education-Related Studies	Applied Leadership for Teaching & Learning, UW-Green Bay
Education-Related Studies	Art Education, UW-Madison
Education-Related Studies	Art Education, UW-Milwaukee
Education-Related Studies	Business Education, UW-Whitewater
Education-Related Studies	Career and Technical Education, UW-Stout
Education-Related Studies	Career Counselor, UW-Oshkosh
Education-Related Studies	Certificate in Autism Specialist Program, UW-Whitewater
Education-Related Studies	Certificate in Community Counseling, UW-Whitewater
Education-Related Studies	Certificate in Construction Safety, UW-Whitewater
Education-Related Studies Education-Related Studies	Certificate in Higher Education Counseling, UW-Whitewater
Education-Related Studies	Certificate in School Counseling, UW-Whitewater
Education-Related Studies Education-Related Studies	Cognitive Disabilities - Borderline, UW-Stevens Point
Education-Related Studies Education-Related Studies	College Student Development and Admin., UW-La Crosse
	Counseling Psychology, UW-Madison
Education-Related Studies	Counseling, UW-Madison
Education-Related Studies	Counseling, UW-Oshkosh
Education-Related Studies	Counseling, UW-River Falls
Education-Related Studies	Counseling, UW-Whitewater
Education-Related Studies	Counselor Education, UW-Platteville
Education-Related Studies	Cultural Foundations of Education, UW-Milwaukee
Education-Related Studies	Curriculum and Instruction, UW-Madison
Education-Related Studies	Curriculum and instruction, Ownerson
Education-Related Studies	Curriculum and Instruction, UW-Milwaukee
Education-Related Studies	Curriculum and Instruction, UW-Oshkosh
Education-Related Studies	Curriculum and Instruction, UW-Whitewater
Education-Related Studies	Early Childhood Pre-Kindergarten, Kindergarten Add-on, UW-Stevens Point
Education-Related Studies	Early Childhood: Special Education, UW-Stevens Point
Education-Related Studies	Education (General), UW-Stevens Point
Education-Related Studies	Education, UW-Platteville
Education-Related Studies	Education, UW-Stout
Education-Related Studies	Educational Administration, UW-Stevens Point
Education-Related Studies	Educational Administration, UW-Superior
Education-Related Studies	Educational Leadership & Policy Analysis, UW-Oshkosh
Education-Related Studies	Educational Leadership & Policy Analysis, UW-Oshkosh
Education-Related Studies	Instruction, UW-Superior
Education-Related Studies	Instructional Library Media Specialist (license # 902), UW-Milwaukee
Education-Related Studies	Leadership for Social Justice, UW-Oshkosh
Education-Related Studies	Learning Disabilities Teacher Post-Baccalaureate Certificate, UW-River Falls
Education-Related Studies	Learning Disabilities, UW-Stevens Point
Education-Related Studies	Master Administrator Capstone Certificate, UW-Madison
Education-Related Studies	Mathematics Education, UW-Oshkosh
Education-Related Studies	MSE-Prof Dev-Principal Licensure Program, UW-River Falls
Education-Related Studies	MSE-Prof Dev-Shared Inquiry Community, UW-River Falls
Education-Related Studies	Multicategorical Special Education, UW-Stevens Point
Education-Related Studies Education-Related Studies	Music Education, UW-Stevens Point
Education-Related Studies Education-Related Studies	Music:Education, UW-Madison
Education-Related Studies Education-Related Studies	Occupational Ergonomics, UW-Whitewater
	Professional Development (ED), UW-Eau Claire
Education-Related Studies	Professional Development (ED), UW-La Crosse
Education-Related Studies	Professional Development Process, UW-Whitewater
Education-Related Studies	Reading Certificate, UW-River Falls
Education-Related Studies	Reading Certificate, OVY-Niver Fails

Category	Program and Institution
Education-Related Studies	Reading Specialist, UW-Stevens Point
Education-Related Studies	Reading Teacher, UW-Stevens Point
Education-Related Studies	Reading, UW-La Crosse
Education-Related Studies	Reading, UW-Oshkosh
Education-Related Studies	Reading, UW-Oshkosh
Education-Related Studies	Reading, UW-River Falls
Education-Related Studies	Reading, UW-Superior
Education-Related Studies	Reading, UW-Whitewater
Education-Related Studies	Safety, UW-Whitewater
Education-Related Studies	School Business Management, UW-Whitewater
Education-Related Studies	Science Education, UW-Madlson
Education-Related Studies	Second Language Acquisition, UW-Madison
Education-Related Studies	Secondary Education Initial Certification, UW-River Falls
Education-Related Studies	Secondary Education, UW-River Falls
Education-Related Studies	Special Education, UW-Eau Claire
Education-Related Studies	Special Education, UW-La Crosse
Education-Related Studies	Special Education, UW-Madison
Education-Related Studies	Special Education, UW-Oshkosh
Education-Related Studies	Special Education, UW-Superior
Education-Related Studies	Special Education, UW-Whitewater
Education-Related Studies	Specialist Certificate in Administrative Leadership, UW-Milwaukee
Education-Related Studies	Specialist in Education: Educational Administration, UW-Stevens Point
Education-Related Studies	Teaching, Master of Arts, UW-Eau Claire
Education-Related Studies	Teaching, Master of Science, UW-Eau Claire
Education-Related Studies	Teaching, Master of Science, UW-Stevens Point
Education-Related Studies	Transition Specialist Certificate Program, UW-Whitewater
Education-Related Studies	Urban Education, UW-Milwaukee
Engineering, Architecture & Applied Tech	Architecture, UW-Milwaukee
Engineering, Architecture & Applied Tech	Biological Systems Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Biomedical Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Chemical Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Civil and Environmental Engineering, UW-Madlson
Engineering, Architecture & Applied Tech	Computer Science - Joint International Masters, UW-Platteville
Engineering, Architecture & Applied Tech	Electrical Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Engineering Mechanics, UW-Madison
Engineering, Architecture & Applied Tech	Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Engineering, UW-Milwaukee
Engineering, Architecture & Applied Tech	Engineering, UW-Platteville
Engineering, Architecture & Applied Tech	Environmental Chemistry and Technology, UW-Madison
Engineering, Architecture & Applied Tech	Environmental Chemistry and Technology, UW-Madison
Engineering, Architecture & Applied Tech	Environmental Monitoring, UW-Madison
Engineering, Architecture & Applied Tech	Geological Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Industrial Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Industrial Hygiene, UW-Stout
Engineering, Architecture & Applied Tech	Landscape Architecture, UW-Madison
Engineering, Architecture & Applied Tech	Manufacturing Engineering, UW-Stout
Engineering, Architecture & Applied Tech	Manufacturing Systems Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Materials Science, UW-Madison
Engineering, Architecture & Applied Tech	Mechanical Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Metallurgical Engineering, UW-Madison
Engineering, Architecture & Applied Tech	Nuclear Engineering & Engineering Physics, UW-Madison
Engineering, Architecture & Applied Tech	Risk Control, UW-Stout
Engineering, Architecture & Applied Tech	Software Engineering, UW-La Crosse
Engineering, Architecture & Applied Tech	Transportation Management and Policy, UW-Madison
Engineering, Architecture & Applied Tech	Urban and Regional Planning, UW-Madison
Engineering, Architecture & Applied Tech	Urban Planning, UW-Milwaukee
Family & Consumer Resources	Family and Consumer Journalism, UW-Madison
Family & Consumer Resources	Food and Nutritional Sciences, UW-Stout
Family & Consumer Resources	Human and Community Resources, UW-Stevens Point
Family & Consumer Resources	Human Ecology, UW-Madison
Fine & Applied Arts	Advanced Study in Chamber Music, UW-Milwaukee
Fine & Applied Arts	Art History, UW-Madison

Category	Program and Institution
Fine & Applied Arts	Art History, UW-Madison
Fine & Applied Arts	Art History, UW-Milwaukee
Fine & Applied Arts	Art, UW-Madison
Fine & Applied Arts	Art, UW-Milwaukee
Fine & Applied Arts	Business: Arts Administration, UW-Madison
Fine & Applied Arts	Dance, UW-Madison
	Material Culture Studies, UW-Madison
Fine & Applied Arts	Music Education, UW-Stevens Point
Fine & Applied Arts	Music, UW-Madison
Fine & Applied Arts	Music, UW-Milwaukee
Fine & Applied Arts	Music; 6VV-Milwadice Music:Ethnomusicology, UW-Madison
Fine & Applied Arts	Music:History, UW-Madison
Fine & Applied Arts	Music:Performance, UW-Madison
Fine & Applied Arts	Music:Theory, UW-Madison
Fine & Applied Arts	
Fine & Applied Arts	Performing Arts, UW-Milwaukee
Fine & Applied Arts	Theatre and Drama, UW-Madison
Fine & Applied Arts	Visual Arts, UW-Superior
Foreign Languages & Literature	African Languages and Literature, UW-Madison
Foreign Languages & Literature	Chinese, UW-Madison
Foreign Languages & Literature	Classics, UW-Madison
Foreign Languages & Literature	Comparative Literature, UW-Madison
Foreign Languages & Literature	Foreign Language and Literature, UW-Milwaukee
Foreign Languages & Literature	Foreign Language Educational Technology, UW-Oshkosh
Foreign Languages & Literature	French Studies, UW-Madison
Foreign Languages & Literature	French, UW-Madison
Foreign Languages & Literature	German, UW-Madison
Foreign Languages & Literature	Greek, UW-Madison
Foreign Languages & Literature	Hebrew and Semitic Studies, UW-Madison
Foreign Languages & Literature	Italian, UW-Madison
Foreign Languages & Literature	Japanese, UW-Madison
Foreign Languages & Literature	Latin, UW-Madison
Foreign Languages & Literature	Linguistics, UW-Madison
Foreign Languages & Literature	Portuguese, UW-Madison
Foreign Languages & Literature	Slavic Languages and Literatures, UW-Madison
Foreign Languages & Literature	Spanish, UW-Madison
Health-Related Studies	Audiology (Alternate name for Communicative Disorders), UW-Stevens Point
Health-Related Studies	Audiology (Consortial Degree), UW-Madison
Health-Related Studies	Audiology (Consortial Degree), UW-Stevens Point
Health-Related Studies	Clinical Exercise Physiology, UW-La Crosse
Health-Related Studies	Clinical Investigations, UW-Madison
Health-Related Studies	Clinical Laboratory Sciences, UW-Milwaukee
Health-Related Studies	Communication Sciences & Disorders, UW-Milwaukee
	Communication Sciences And Disorders, UW-Eau Claire
Health-Related Studies	Communication Goldrices valid Biosrders, GW Edd States Communicative Disorders (Alternate name for Audiology (Consortial Degree)), UW-
Health-Related Studies	Stevens Point
	Communicative Disorders, UW-Madison
Health-Related Studies	Communicative Disorders, UW-Madison
Health-Related Studies	Communicative Disorders, UW-River Falls
Health-Related Studies	Communicative Disorders, OW-River Fails Communicative Disorders, UW-Stevens Point
Health-Related Studies	Communicative Disorders, UW-Whitewater
Health-Related Studies	Community Health Education, UW-La Crosse
Health-Related Studies	Exercise & Sport Science, UW-La Crosse
Health-Related Studies	Family Nurse Practioner Certificate, UW-Milwaukee
Health-Related Studies	
Health-Related Studies	Family Nurse Practitioner, UW-Oshkosh
Health-Related Studies	Health Care Informatics, UW-Milwaukee
Health-Related Studies	Health Care Management Certificate, UW-Oshkosh
Health-Related Studies	Health Sciences, UW-Milwaukee
Health-Related Studies	Industrial Hygiene, UW-Stout
Health-Related Studies	Kinesiology, UW-Madison
Health-Related Studies	Kinesiology, UW-Milwaukee
Health-Related Studies	Marriage and Family Therapy, UW-Stout
Health-Related Studies	Medical Informatics, UW-Milwaukee

Catanana	Program and Institution
Category Health-Related Studies	Medicine, UW-Madison
	Neuroscience, UW-Madison
Health-Related Studies	Nursing, UW-Eau Claire
Health-Related Studies	Nursing, UW-Madison
Health-Related Studies	Nursing, UW-Milwaukee
Health-Related Studies	
Health-Related Studies	Nursing, UW-Oshkosh
Health-Related Studies	Occupational Therapy, UW-La Crosse
Health-Related Studies	Occupational Therapy, UW-Madison
Health-Related Studies	Occupational Therapy, UW-Milwaukee
Health-Related Studies	Pharmaceutical Sciences, UW-Madison
Health-Related Studies	Pharmacy, UW-Madison
Health-Related Studies	Physical Therapy (Consortial Degree), UW-La Crosse
Health-Related Studies	Physical Therapy (Consortial Degree), UW-Milwaukee
Health-Related Studies	Physical Therapy, UW-La Crosse
Health-Related Studies	Physical Therapy, UW-Madison
Health-Related Studies	Physician Assistant Studies, UW-La Crosse
Health-Related Studies	Population Health, UW-Madison
	Public Health - Community Health Education (Alternate name for Community Health
Health-Related Studies	Education), UW-La Crosse
Health-Related Studies	Public Health, UW-Madison
Health-Related Studies	Rehabilitation Psychology, UW-Madison
Health-Related Studies	Social and Admin. Sciences in Pharmacy, UW-Madison
Treattr-Telated Otables	
Health-Related Studies	Speech Pathology (Alternate name for Communicative Disorders), UW-Stevens Point
Health-Related Studies	Therapeutic Science, UW-Madison
	Vocational Rehabilitation, UW-Stout
Health-Related Studies	Liberal Studies, UW-Milwaukee
Interdisciplinary Studies	Special Graduate Committee, UW-Madison
Interdisciplinary Studies	Computer and Information Systems, UW-Parkside
Math, Computer & Information Sciences	Computer Science, UW-Milwaukee
Math, Computer & Information Sciences	Computer Sciences, UW-Madison
Math, Computer & Information Sciences	
Math, Computer & Information Sciences	Education and Mathematics, UW-Madison
Math, Computer & Information Sciences	Information and Communication Technologies, UW-Stout
Math, Computer & Information Sciences	Mathematics, UW-Madison
Math, Computer & Information Sciences	Mathematics, UW-Milwaukee
Math, Computer & Information Sciences	Statistics, UW-Madison
Public Affairs & Service	Criminal Justice, UW-Milwaukee
Public Affairs & Service	Criminal Justice, UW-Platteville
Public Affairs & Service	Law, UW-Madison
Public Affairs & Service	Legal Institutions, UW-Madison
Public Affairs & Service	Master of Public Administration, UW-Milwaukee
Public Affairs & Service	Public Administration, UW-Oshkosh
Public Affairs & Service	Public Affairs, UW-Madison
Public Affairs & Service	Recreation Management, UW-La Crosse
Social Sciences	Anthropology, UW-Madison
Social Sciences	Anthropology, UW-Milwaukee
Social Sciences	Applied Psychology, UW-Stout
Social Sciences	Cartography and Geographic Info Systems, UW-Madison
Social Sciences	Development, UW-Madison
Social Sciences	Economics, UW-Madison
Social Sciences	Economics, UW-Milwaukee
Social Sciences	Educational Psychology, UW-Madison
	Educational Psychology, UW-Milwaukee
Social Sciences	Geography, UW-Madison
Social Sciences	Geography, UW-Milwaukee
Social Sciences	Geography, Ovv-Iviliwaukee
	GIS, Cartography, History of Cartography, and Historical Geography, UW-Milwaukee
Social Sciences	
Social Sciences	History of Science, UW-Madison
Social Sciences	History, UW-Eau Claire
Social Sciences	History, UW-Madison History, UW-Milwaukee
Social Sciences	II tratemy I DB/ Mathematikaa

Category	Program and Institution
	Human Resources (Alternate name for Master of Human Resources & Labor Relation),
Social Sciences	UW-Milwaukee
	Human Resources and Labor Relations (Alternate name for Master of Human
Social Sciences	Resources & Labor Relation), UW-Milwaukee
Social Sciences	International Public Affairs, UW-Madison
	Labor Relations (Alternate name for Master of Human Resources & Labor Relation), UW-
Social Sciences	Milwaukee
Social Sciences	Master of Human Resources & Labor Relation, UW-Milwaukee
Social Sciences	Material Culture Studies, UW-Madison
Social Sciences	Mental Health Counseling, UW-Stout
Social Sciences	Political Science, UW-Madison
Social Sciences	Political Science, UW-Milwaukee
Social Sciences	Psychology, UW-Madison
Social Sciences	Psychology, UW-Milwaukee
Social Sciences	Psychology, UW-Oshkosh
Social Sciences	Rural Sociology, UW-Madison
Social Sciences	School Psychology, UW-Eau Claire
Social Sciences	School Psychology, UW-La Crosse
Social Sciences	School Psychology, UW-Milwaukee
Social Sciences	School Psychology, UW-River Falls
Social Sciences	School Psychology, UW-Stout
Social Sciences	School Psychology, UW-Whitewater
Social Sciences	Social Welfare, UW-Madison
Social Sciences	Social Work, UW-Green Bay
Social Sciences	Social Work, UW-Madison
Social Sciences	Social Work, UW-Milwaukee
Social Sciences	Social Work, UW-Oshkosh
Social Sciences	Sociology, UW-Madison
Social Sciences	Sociology, UW-Milwaukee
Social Sciences	Urban Studies, UW-Milwaukee
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WISCONSIN STATE LEGISLATURE



TUESDAY, March 13, 2007, 10:20 a.m. By Erica Perez

Audit looks at tech school faculty pay

Full-time faculty at seven Wisconsin Technical Colleges earn more than their counterparts at nearby four-year University of Wisconsin campuses, usually because they add extra classes to their workload, according to a state Legislative Audit Bureau report released today.

The audit took a comprehensive look at personnel policies for the 16 schools in the state's technical college system.

Among the report's other key findings:

- * Milwaukee Area Technical College needs to come up with a plan to address the \$228.6 million it will owe in long-term costs for health insurance in retirement and other non-pension benefits, known as "other post-employment benefits."
- "The calculated liability for the Milwaukee Area district raises concerns about its ability to meet future obligations without significantly increasing revenues or significantly reducing its operating budget," the audit reads.
- * Technical colleges were much more likely than schools in the University of Wisconsin system to resolve personnel issues through settlement agreements. Wisconsin Technical College System schools had 81 settlements over a three-year period, compared with 13 in the UW system over three years.

Audit: Wis. technical college faculty highly paid

By RYAN J. FOLEY

MADISON, Wis. - Faculty who work for Wisconsin technical colleges have some of the highest salaries in the nation, according to an audit released Tuesday.

They also earn generous health insurance and retirement benefits and receive additional compensation by taking on workloads larger than those specified in union contracts, the Legislative Audit Bureau said.

Full-time faculty in the Wisconsin Technical College System earned an average of \$74,598 in the school year that ended in 2005, the report said.

That's about \$22,000 more per year than their counterparts who work for two-year University of Wisconsin campuses, the audit said, and often more than faculty at nearby four-year UW schools.

"This audit is telling us that we've gotten out of control with our benefits and our salaries in the technical college system," said Rep. Suzanne Jeskewitz, R-Menomonee Falls and co-chair of the Legislature's audit committee, which plans a hearing on the report next month. "I would hope the public will get very angry about this."

The report summarizes a lengthy audit of personnel policies and practices in Wisconsin's 16 technical college districts, which are funded with a mix of property taxes, tuition, and state and federal aid.

Lawmakers called for the audit in 2005 after auditors documented high spending on outside lawyers by technical college districts and amid concerns about management at Gateway Technical College in Kenosha. It mirrored a similar audit released last year of the UW System.

Wisconsin technical college faculty members' base pay was third highest in the nation in 2004-2005 behind California and Michigan, the audit said.

In addition, 70 percent of technical college faculty earned more than their base salary because they picked up summer classes or taught more classes than required, the report said. In one case, a professor earned an additional \$124,610 by picking up 17 extra courses.

In seven of 10 districts that also contain a four-year UW campus, average earnings were higher for technical college faculty. In the largest discrepancy, faculty at Northeast Wisconsin Technical College earn \$25,200 more than their UW-Green Bay counterparts.

At least 369 faculty and administrators earned \$100,000 or more in 2004-2005, the audit said.

System President Dan Clancy defended the salaries, saying they are needed to attract good workers in competitive employment markets. He also said it's cost effective to ask full-time faculty members to increase their workload rather than hire additional workers.

Besides the high salaries, the audit also found:

_ Thirteen districts have unfunded liabilities for retirement benefits promised to current and former employees. The Milwaukee area district has the largest, \$228 million, which means major budget cuts or revenue increases will be likely in the future, the audit warned.

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_ Districts negotiated 81 settlement agreements with employees between 2002 and 2006 to settle personnel disputes. The payments totaled \$1.5 million and 47 of them included health insurance benefits for employees for at least some time.

Unlike some UW employees, auditors found that technical college employees report their sick leave and do not have so-called backup jobs guaranteed if they are fired from administrative posts.

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MURPHY'S LAW

State Study Proves Jaw-Dropping MATC Pay

And: County Board Says Feed Me by Bruce Murphy | Tuesday 3/20/2007

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MURPHY'S LAW LETTERS

One year ago, I wrote a <u>column</u> called "Gravy Train" suggesting MATC teachers were overpaid. Last week, the Legislative Audit Bureau released a study of the state's technical colleges that buttressed all of my charges.

The study found the average base salaries of technical college teachers in Wisconsin are "among the highest reported nationally." It also found average annual earnings of the technical college teachers exceeded those of full-time faculty at two-year University of Wisconsin Colleges by a jaw-dropping \$22,000.

As I've suggested before, the difference is explained by the fact that UW budgets are overseen by the state legislature, while technical colleges have boards that aren't publicly elected and can levy property taxes to increase their budgets.

These boards have often been out-negotiated by unions. (Sometimes, I suspect, the boards don't really try.) Thus, faculty at technical colleges statewide earn \$74,598, nearly as much as administrators earn (\$77,567) at these colleges. But Milwaukee has turned things completely upside down: Average faculty earn more (\$89,850) than administrators (\$86,556) at MATC.

MATC had 169 faculty earning more than \$100,000 and just 19 administrators making that much, the audit found. No technical college in the state had such an absurd pay ratio.

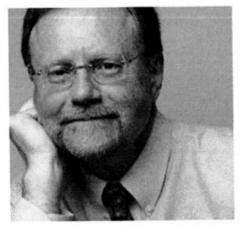
Indeed, MATC faculty earn some \$37,300 more per year on average than UW two-year college instructors and \$12,800 more than *four-year* college instructors at UWM, who earn \$77,100.

The MATC teacher's union has made much of the salary of school President **Darnell Cole**, but the audit statistics show pretty low administrative pay overall at MATC: average earnings of \$86,556, compared to four smaller districts in the state where average administrators' earnings range from \$89,292 to \$102,053.

Now that the legislature has the facts, it should consider some kind of governance change to make the MATC board more answerable (and more visible) to the public. For too long, it has handed out raises for faculty with little or no scrutiny.

Steve Biskupic Denies He Was Pressured

Last week, I raised this question: Did the fact that Milwaukee U.S. Attorney **Steve Biskupic** was not among those purged by the White House mean he was sufficiently amenable to Republican political pressure? A glimmer of support for that theory came in a Sunday New York Times story on the removal of Albuquerque U.S. Attorney **David**



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Iglesias. In the story, a New Mexico Republican activist compared Iglesias unfavorably to prosecutors in Colorado and Wisconsin, who went after the issue of voter fraud.

That contention, however, had earlier been contradicted by a statement from the White House defending its purge of U.S. attorneys by noting "the lack of vigorous prosecution of election fraud cases in various locations, including Milwaukee..."

Biskupic himself, in response to my column, responded as follows:

- "1. As far as I recall, I have never been contacted by the White House about anything (except my nomination as U.S. attorney more than five years ago). I never knew until published reports this week that someone was complaining to the WH about lax prosecution on voter fraud.
- 2. The local Republican Party did make public complaints to my office about voter fraud in Milwaukee, including a letter with specific allegations. You may recall we investigated and publicly rejected the specific allegations.
- 3. No one (beyond normal lawyer stuff such as a lawyer advocating for a particular client) contacted me to encourage or discourage the prosecution of the other public corruption cases. There definitely was no political pressure to pursue or not pursue a specific case."

In addition to declaring there was no organized conspiracy to commit voter fraud in Milwaukee, thoroughly dashing Republican hopes on this issue, Biskupic has also gone after a prominent Republican, County Executive **Scott Walker**, on a smelly bond deal in a case that has languished.

True, Biskupic has mostly prosecuted Democrats, but there's no evidence he's been in any way biased. My speculation to the contrary last week was unfair.

CountySupervisors: Feed Me

Last week, Milwaukee County Director of Audits **Jerome Hee**r released a study showing county supervisors earn far less than their counterparts in comparable cities. Heer did the study at the request of County Board Chairman **Lee Holloway**.

Heer was asked only to look at salaries, not at how many board members Milwaukee has versus other counties, perhaps because that would show we are paying a very high price for our government, even with the lower salaries. The fact is Milwaukee has more county supervisors than most cities.

Indeed, as I've written before, no state has more county supervisors than Wisconsin. Nearly 10 percent of all county board members in the United States can be found in Wisconsin, according to figures from the National Association of Counties (NAC). That's right, of some 18,751 county supervisors nationally, 1,793 are located in the Badger State.

Even massive states like California, New York and Texas have fewer total board members than Wisconsin. And most cities have less than Milwaukee's 19 county supervisors.

If the board wants to base its salary on other cities, then it's only fair to look at the total salary load for supervisors. As it happens, the Citizens for Responsible Government has gleefully run these numbers in a quick study they did, and the answers show we are still paying more for our county supervisors than other cities. Unless the board wants to cut the number of supervisors, it could have a hard time convincing the public that salaries need to be raised.

Short Takes

Last week's Journal Sentinelstory written in the wake of criticism of the country's veterans' medical care system told us spending for VA care more than doubled since 1995. But since the administration of George W. Bush is being criticized, why run statistics that include five years under Democrat Bill Clinton? What was the growth since 2001? That would tell us much more, either pro or con, about the current president's

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commitment to veterans.

 Patrick McIlheran once again exposed the problem of a columnist who's never reported on politics in this state. His recent <u>column</u> claimed Tommy Thompson didn't raise taxes, but simply relied on economic growth to pay for his spending, unlike Jim Doyle.

It's been well-documented that Thompson made all sorts of "modifications" in fees, including more than 100 in his 1995 budget, to raise more revenue. But his best dodge was neglecting to adjust the state income tax for inflation. Thus, as inflation drove a person's salary to more than \$20,000 annually, he or she was forced to pay the top tax rate of 6.9 percent. Between 1988 and 1995, this increased the number of taxpayers paying the top tax rate from 23 percent to 63 percent. Finally, media attention to the problem forced the governor and legislature to index the income tax to end this automatic tax hike.

There are veteran reporters at the JS who know this. Why doesn't McIlheran just ask?

And don't miss Ann Christenson's Dish on Dining

Got a tip? Contact Bruce Murphy.

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Guest column: Comparing tech college pay omits some key facts

Advertisement

By Phyllis Habeck

Guest columnist March 25, 2007

Last week the Legislative Audit Bureau released a report on certain Wisconsin Technical College System personnel policies and procedures.

The audit's reporting of faculty salaries seems to have generated particular interest. But the report leaves out some important information.

Specifically, the faculty who are earning more money are also likely to be:

- Working more hours.
- Coming from more competitive industries.
- Still saving taxpayer dollars.

The audit found differences between the average earnings of full-time University of Wisconsin faculty and full-time Wisconsin Technical College System faculty.

In our area, it found differences between UW-Green Bay and Northeast Wisconsin Technical College.

Many technical college faculty teach extra classes to meet student needs — essentially working a part-time job in addition to their full-time job.

Instructors who accept "extra-contractual" classes often teach at night, on weekends and online during non-traditional times, sometimes using highly technical equipment.

NWTC is fortunate to have faculty members who are willing to work additional hours in highdemand fields.

The audit did not account for extra hours worked when it compared the two groups.

It is also far less expensive to pay our faculty to teach extra hours than it would be to hire additional faculty members. In 2004-05, NWTC had 32 faculty who earned over \$100,000 because they taught extra classes. If the same services had been offered without these faculty members, 35 additional benefited faculty would have been needed.

By using existing faculty, NWTC saved an estimated \$650,000 per year.

Frugal use of taxpayer funds has allowed NWTC to maintain the second lowest operating cost

per full-time-equivalent student among the 16 technical college districts in Wisconsin.

If the Legislative Audit Bureau had compared full-time salaries alone, the report would have showed an NWTC average salary of \$61,279 and UWGB average salary of \$57,199 — a difference of about 7 percent. Yet NWTC faculty have 20 hours of weekly contact with students, where UWGB faculty have 15 hours — a difference of about 33 percent. Thus, this still is not a true hour-for-hour wage comparison. In addition, technical college districts recruit and hire in a very competitive business and industry market.

Our instructors must have significant work experience in their area of expertise and be willing to work flexible schedules. This allows the Wisconsin Technical College System to serve working adults and meet the needs of industry and business.

We constantly compete with the private sector to retain our highly trained and experienced faculty.

NWTC is nationally recognized as a leader in technical education, offering a wide variety of programs in education and training.

The majority of our graduates remain in our area, providing services that affect our lives every day. NWTC students and faculty are proud of the college.

Our goal is to have all in the district also be proud of their community college. Come visit our campuses and learn what NWTC offers.

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Tech system head grilled on costs Legislators: Public outcry when pay info made public

By Anita Weier March 23, 2007

Taxpayer rage about technical college costs boiled over as state legislators grilled the president of the Wisconsin Technical College System at the State Capitol on Thursday.

"There is a horrific outcry in the western part of the state," said Kitty Rhoades, R-Hudson, co-chair of the budget-writing Joint Finance Committee.

She told WTCS President Dan Clancy that the intensity of complaints about property taxes that support the technical colleges spiked after a state audit found that many technical college instructors are paid more than professors at state universities in the same areas of Wisconsin.

Rep. Robin Vos, R-Racine, noted that the state audit found that instructors at Gateway Technical College earn an average of about \$75,000 annually, roughly \$11,000 more than those at nearby UW-Parkside and UW-Whitewater.

"The (technical college) system makes sure employees are paid the maximum," he said. "That concerns me."

Clancy countered that the earnings include overtime pay, and said that though the audit looked at full-time instructor pay, many other instructors are part time.

Clancy, who leads the system that links the state's 16 technical college districts, appeared before the committee to present the case for the WTCS budget. He argued that tuition and property taxes have increased because state support for WTCS has declined in recent years.

"In recent years, stagnant state support for the Wisconsin Technical College System has resulted in the funding of a disproportionate share of the system's budget with property tax revenue," Clancy said. "In addition, for the first time ever, students are funding a great share of WTCS costs than is the state."

He added that technical college costs have risen because of greater demand for skilled workers, increased enrollments of under-prepared students, increases in energy costs and needed investments in technology and faculty development to ensure students gain cutting-edge skills employers need.

Though full-time-equivalent enrollments have increased 18.4 percent since the last general increase in aid in 2000-01, there has been no increase in general state aid, Clancy said.

He asked the legislators to support portions of the governor's proposed budget that include additional funding for Workforce Advancement Training Grants that trained nearly 12,000 workers from 100 companies in Wisconsin the last two years. He also asked for an increase in student financial aid.

Rhoades agreed that the technical colleges play an important role in economic development, but said some appear to be shifting to a liberal arts role rather than traditional job training. She also said there is growing support for making the local boards, which have taxing authority, elected instead of appointed.

Currently, nine-member district boards that serve staggered terms must include two employers, two employees, a school district administrator, a state or local elected official and three additional district residents. A district appointment committee, composed of county board chairs or school board presidents within the district, appoints the board members, subject to approval of the state system board, which is appointed by the governor.

The Madison Area Technical College Board is appointed by the county board chairs of the 12 counties in the district. An appointment hearing for three members is scheduled for Wednesday, May 2, at 5:30 p.m. at the Truax location of MATC. Applications, due by April 6, can be obtained on the district's Web site at matc.madison.edu/board or by calling the board office at 246-6677.

Clancy told the legislators that the current appointment system has worked quite well, resulting in representation by people of both genders and varied races as well as business people.

"They are subject to ethics rules, and the appointment process is public," he said. "There is a lot of competition."

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Editorial: Audit reveals 2 salary issues

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Issue:

March 28, 2007

Technical college salaries

We received two lessons for the price of one with the release earlier this month of a Legislative Audit Bureau study that found salaries at Wisconsin technical colleges among the highest in the nation.

According to the audit, which took a look at 2004-05 statistics, the average salary for a faculty member at Northeast Wisconsin Technical College was \$82,406 annually.

One NTWC instructor made \$191,528 by teaching 17 extra courses, adding \$124,610 to a base salary of \$66,918.

According to the audit, NWTC had 32 faculty members who made more than \$100,000 in 2004-05.

Meanwhile, the audit found that the University of Wisconsin-Green Bay faculty average is \$57,199, or \$25,000 less than at the technical college.

Comparisons such as these are always interesting, but these are really two salary issues and should be considered separately.

Using the audit to pit one educational system against the other won't serve students, faculty or taxpayers.

"This audit is telling us that we've gotten out of control with our benefits and our salaries in the technical college system," Rep. Suzanne Jeskewitz (R-Menominee Falls) co-chair of the Legislature's audit committee, told the Associated Press.

"I would hope the public gets very angry about this."

Frankly, the audit deserves more than off-the-cuff anger.

It deserves a closer look at what is happening and whether the best interests of students and taxpayers are being served.

It is fair to ask whether various technical college boards of directors may have approved overly generous and exclusionary contract terms to ensure labor peace.

Taxpayers expect reasonable salary and benefits for state employees and accountability from decision makers.

"In my opinion, the quality of what has been long considered a world-class university system is at risk," UWGB Chancellor Bruce Shepard said Sunday in a column that he wrote for the Green Bay Press-Gazette.

His argument is that salaries within the UW System are so low that top-notch educators are being lured away from Wisconsin.

Certainly, the audit gives some weight to Shepard's argument.

Unfortunately, those who support Gov. Jim Doyle's plan to allow 17,000 UW System faculty and academic staff to form unions similar to those at the technical school may use the audit as fodder.

Use the audit to assess whether salaries and benefits are appropriate, not as justification for putting the squeeze on the technical college bargaining units or as an excuse to create a new union for the UW System.

Wisconsin's post-secondary educational system — two- and four-year colleges and the technical college system — is vital to the state's economic and educational health.

Make use of this audit wisely.

WISCONSIN STATE LEGISLATURE





NEWS

Contact: Dale J. Knapp or Todd A. Berry 608.241.9789 or wistax@wistax.org April 25, 2007

Wisconsin's Technical Colleges' Annual Impact Put at \$6.9 Billion

WISTAX Consultants Estimate Total Output Generated by WTCS

MADISON—Through the economic benefits accruing to its graduates and through its institutional spending, Wisconsin's 16 technical colleges help generate more than \$6.9 billion of state output annually. That figure represents 3.2% of the state total, according to a new study done by the consulting arm of the Wisconsin Taxpayers Alliance (WISTAX) at the request of the Wisconsin Technical College System (WTCS).

Each year, tax dollars invested in WTCS to educate more than 409,000 citizens cycle through the economy, creating economic output, jobs, and higher wages. Using a computer input-output model that estimates economic impact, the WISTAX study estimated that the \$1.03 billion of 2005-06 WTCS spending that remained in the state helped to generate \$2.82 billion of state output. Furthermore, additional earnings (above what they would have earned as high school graduates) of current and past WTCS students helped create an additional \$4.09 billion of state output. This latter estimate is a lower bound on WTCS's impact, as the study could not measure the economic impact of working adults who take individual courses or students obtaining high school equivalency degrees (GEDs).

The report, "Growing Wisconsin's Economy: The Economic Impact of Wisconsin's Technical Colleges," also estimated the return that taxpayers receive on public investment in the technical colleges. In 2005-06, state and local taxes totalling \$778 million were leveraged with other revenues to generate the \$1.4 billion of spending. The estimated \$2.82 billion of state output generated represented a return to taxpayers of \$3.62 for every \$1 invested.

The WISTAX study also estimated a state-local investment of \$360.6 million in 2005-06 graduates during their years of study. Over their lifetimes, these graduates are estimated to earn an additional \$2.11 billion over what they would have earned as high school graduates, or nearly \$6 for each \$1 invested.

The additional social impact of post-secondary education, e.g., reduced crime and fewer demands on social services, was not estimated in the study. The full report can be accessed on the WISTAX Web site (www.wistax.org/facts/wtcs.pdf).

The Wisconsin Taxpayers Alliance, founded in 1932, is the state's oldest and most respected private government-research organization. Through its research, publications, civic lectures and school talks, WISTAX aims to improve Wisconsin government through citizen education. Nonprofit, nonpartisan and independently funded, WISTAX is not affiliated with any group—national, state or local—and receives no government support.



Growing Wisconsin's Economy

The Economic Impact of Wisconsin's Technical Colleges



Prepared for The Wisconsin Technical Colleges by the Wisconsin Taxpayers Alliance

EXECUTIVE SUMMARY

Wisconsin's 16 technical colleges impact the state economy by educating approximately one in ten state residents, and spending more than \$1 billion annually. These direct effects cycle through the economy, creating additional output, jobs, and earnings. This study estimates the total economic impact of the 16 colleges, the tax revenues generated by that activity, and the return taxpayers receive on the public investment.

Two estimation approaches are used here. First, an input-output model is used to estimate the impact of technical college spending on the Wisconsin economy. This is a commonly used approach to measuring economic impacts.

In the second part of the study, Census figures on earnings by age and education were used to estimate the 2006 earnings gains of current and past technical college graduates. These gains were then translated into output measures consistent with the technical college spending impacts.

In addition to the estimated economic effects, this study reports on state tax revenues generated as a result of the gains and two measures of "return on investment.

Some of the major findings include:

Technical colleges impact the state economy through the educational services they provide. Although there are likely income gains from both graduates and nongraduates, only data to estimate the gains for the former are available. In 2006, the additional earnings from technical college graduates ages 62 and younger are estimated to be \$1.73 billion. The spending from those additional earnings translated into \$4.09 billion in state output and 24,151 jobs. This is a lower bound on the annual earnings' impact because we cannot estimate the gains for nongraduates.

- were invested in the 2005-06 graduates during their course of study. That money was leveraged with student tuition and fees, federal dollars, and other revenues. Over their lifetimes, these graduates are estimated to earn (in 2006 dollars) an additional \$2.11 billion over what they would have earned as high school graduates. These additional earnings represent a return on state and local tax investment of nearly six.
- In 2005-06, \$778 million in state and local taxes helped fund Wisconsin's technical colleges. Those dollars were leveraged with federal monies, institutional investment, and student tuition to generate \$1.38 billion of spending.
- In addition to its educational services, technical colleges impact the state economy through their spending. The estimated \$1.03 billion of 2005-06 in-state spending created an additional \$1.79 billion of output. Taken together, this one year of technical college spending created an estimated \$2.82 billion of total state output, or 1.3% of the 2005 state total. The total output created from this one year of spending represented a return on state-local tax investment of nearly four.
- In terms of employment, a total of 25,461 jobs, including approximately 10,000 within the system, resulted from the \$1.03 billion of spending.
- The combined impact of 2005-06 institutional spending and the 2006 earnings gains from current and past graduates was estimated to be \$6.91 billion, or 3.2% of total state output. The total impact in terms of jobs for that year was 49,612.
- The economic activity generated from these earnings gains and from the economic impact from the colleges' spending generated a total of \$280.5 million in 2006 state income and sales tax revenues.

INTRODUCTION

Institutions of higher education can significantly impact local and regional economies. Through education, colleges and universities increase the skills of citizens and raise the value of these potential employees to employers. Colleges and universities also purchase goods and services, many from local suppliers, that bolster local economic activity.

In addition to these direct impacts, employee wages and purchases of goods and services create additional economic activity. As sellers of the goods and services (that the technical colleges or employees purchase) buy inputs for production and use profits to purchase other goods and services, additional economic activity is created.

These transactions cycle through the economy, multiplying economic activity. Thus, the total economic impact of a college or university is more than what it spends.

Wisconsin's 16 technical colleges generate many benefits, both educational and institutional, to the state. Students increase their earning potential, businesses get a more-skilled workforce, and society benefits from less unemployment and crime, and a more aware and engaged citizenry. In addition, the nearly \$1.4 billion Wisconsin's technical colleges spend each year spawns additional economic activity that has a multiplied impact on the state's economy.

Understanding these contributions, Wisconsin Technical College System (WTCS) officials asked the Wisconsin Taxpayers Alliance (WISTAX) to quantify the impact of the technical colleges on the state economy.

An economic impact study of this nature can be useful in several ways. First, it can demonstrate to business and civic leaders, public officials, and citizens the value of the technical colleges to Wisconsin's economy. Second, it can

help taxpayers understand the economic return realized for each tax dollar of support.

WISTAX researchers met with WTCS representatives in September 2006 to discuss a study of the economic impact of technical colleges. The result was a WISTAX proposal that was approved by WTCS officials in early October 2006.

As outlined in that proposal, the study aims to estimate.

- economic impact of technical college spending on the state's economy;
- increased earnings realized by individuals who graduated from the system and the economic impact of those gains;
- return taxpayers receive on the public investment in the technical colleges.

Impact Studies

There is a large body of research on the impact of higher-learning institutions on local, regional, and state economies. Some approaches are fairly narrow, focusing only on institutional spending or on the impact of education on earnings. Others use a broad approach that includes the effects of reduced crime, lesser demands on social services, and other societal benefits. Some also add the effect of student and visitor spending to their models.

The magnitude of any economic impact is directly related to the size of the region studied. Economic effects generally increase as the region analyzed grows. The main reason is that many purchases and other economic activities occur outside a single community. To the extent these dollars "leak out" of the immediate area, the local economic impact of the institution lessens. When the area of

This study seeks to estimate the economic impact of the WTCS on the state's economy

The magnitude of the estimated effect depends on the size of the region studied, as well as the economic activities included.

interest is expanded, there is less "leakage," and the estimated impact is larger.

A second factor that plays a role in determining the magnitude of the effects is the nature of the economic activity studied. Research that includes student spending, visitor purchases, and other ancillary economic activities will show a larger economic impact than those that include only direct institutional activity.

The analysis here looks at the combined impact of the 16 technical colleges on the state economy. Because the region studied is fairly large, the estimated economic impact should be commensurately large.

However, the impacts identified will be tempered by the degree to which ancillary economic activities are included. Student and visitor spending is not included here. Also, the impact of the colleges on the reduced need for social services is not estimated in this study. There were not sufficient data to estimate the impact of the educational gains for non-program students, basic education students, and non-graduates. Thus, our estimates should be viewed as a lower bound on the colleges' economic impacts.

Finally, the impacts estimated in this study are for approximately one year. The colleges' spending is from fiscal 2005-06 and the earnings of technical college graduates

is for calendar 2006. The economic impacts estimated by our model are short term, likely less than two years. However, since the spending occurs each year, the impacts can be considered annual.

-ormat

The report is divided into sections. Following this introduction is an overview of the technical college system, including governance, students, programs, revenues, and

expenditures.

We then examine the institutional impact of technical colleges on the state economy. This section presents the results of input-output modelling and the total economic impact of technical college spending. The effect on total state output, earnings, and employment is reported. State tax revenues generated from the estimated economic activity is also reported.

The final section examines the economic impact of the additional student education. The improved skills that technical colleges help create for students should result in higher pay for graduates and non-graduates. The economic activity generated from the additional income for graduates is estimated, along with the associated tax revenues. These estimates represent a lower bound on the income gains as they did not include non-program students, non-graduates, and basic education students.

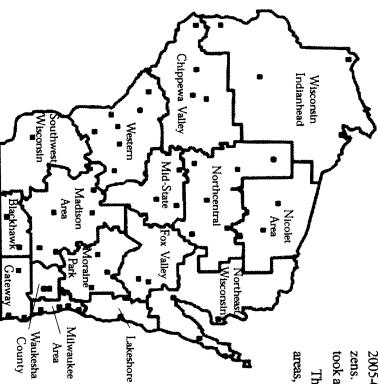
WTCS OVERVIEW

The Wisconsin Technical College System is comprised of 16 technical college districts with 52 campuses throughout the state (see Figure 1 below). In addition to campuses, most of the colleges have several community or regional learning centers throughout their districts.

Governance

Each district is governed by a board that is responsible for the direct operation of the school and its programs. Districts have the power to levy property taxes, provide

Figure 1: The Wisconsin Technical College System



for facilities and equipment, employ staff, and contract for services.

WTCS is the coordinating agency for the 16 technical colleges. The WTCS board establishes statewide policies and standards, and approves the educational programs and services provided by the colleges. It also supervises district operations through reporting and audit requirements, and consultation, coordination and support services. The board also sets standards and approves new construction and remodeling of current facilities.

Technical colleges are selfgoverned, with WTCS serving as coordinating agency.

Students and Programs

Wisconsin's technical colleges provide an array of services to a significant portion of Wisconsin's population. In 2005-06, they provided educational services to 409,380 citizens. Approximately one in 11 residents age 16 or older took advantage of the technical colleges' programs.

The colleges provide educational opportunities in many areas, including basic education, technical diplomas, applied associate degrees, collegiate transfer degrees, and adult education. The latter category includes continuing adult education and community services.

In terms of individuals served, the continuing adult education program was the largest with more than 219,000 persons enrolled (see Table 1 on page six). This program offers non-credit courses in areas ranging from gardening to welding. The community services area was the smallest with fewer than 11,000 individuals enrolled.

When examined on a full-time equivalency (FTE) basis, the applied associate degree program is predominate with more than 60% of FTE enrollment. The technical colleges provide applied associate degrees in nearly 200 disciplines. The collegiate transfer program is much smaller, avail-

In 2005-06, approximately one in 11 residents age 16 or older took advantage of technical college programs.

was the largest based on associate degree program in 2005-06, but the applied served the most individuals Continuing adult education full-time equivalency.

Unduplicated Total

480,716

68,267.0 68,267.0

Technical Diplomas Applied Associate Deg Collegiate Transfer Community Services Continuing Adult Educ Basic Education Technical College Student Counts 219,574 117,408 Number Pct. 38,305 10,631 74,556 20,242 45.7% 15.5% 24.4% 8.0% 4.2% 41,988.6 61.5% FIE 3,856.3 8,631.3 12.6% 6,020.5 7,559.4 11.1% 211.0

Pct.

8.8%

earn associate degrees that satisfy the first two years of a able on only three campuses: Madison, Milwaukee, and Nicolet. The program provides students the opportunity to bachelor degree.

school equivalency) certificate. plete their General Educational Development (GED or high ginning with elementary levels and allow students to comone in nine FTE's, provide instruction on a continuum, be-The basic education programs, which account for about

Revenues

the next section when returns on public investment are discolleges are funded. This will be particularly important in nical college spending, it is useful to understand how the While this report examines the economic impact of tech-

total) and federal (\$141 million, 10.2%) governments brought Other tax dollars from state (\$155 million, 11.3% of the sources, primarily property taxes (see Figure 2 at right) total public investment to 66.7% of total revenues. State lion in revenue. Nearly half (45.2%) was from "local" In 2005-06, the technical colleges collected \$1.38 bil-

> and local tax support of the technical colleges totalled \$778 million, or 56.4% of the total

of goods and services and from investment income, were ition and academic fees) accounted for 10.1% of revenues 15.3% of the 2005-06 total. Program fees (generally tu-Institutional dollars, or revenues generated from the sale

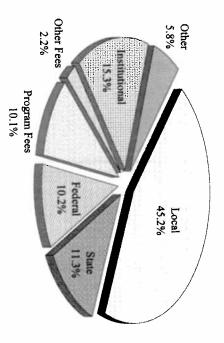
Spending

5.6%

2005-06. Spending varied by district and by category. Technical college expenditures totalled \$1.38 billion in

waukee Area Technical College, the state's most populous students it serves. As Table 2 on page seven shows, Mildistrict's spending, the most significant is the number of more than \$100 million each. These three, along with Milley, and Northeast were the other three districts spending district, spent the most at \$286 million. Madison, Fox Valwide is varied. Although many factors affect an individual By District. The impact of the technical colleges state-

Wisconsin Technical College Revenue Sources 2005-06, Total = \$1.38 billion Figure 2:



accounted for two-thirds of state, and federal taxpayers Public dollars from local, technical college revenues

WTCS Spending 2005-06, \$ Millions

waukee, are the state's

headcounts and FTE's. largest both in terms of

District	Exp.	By Expenditure Cat-
Blackhawk	\$37.61	egory. More important for
Chippewa Valley	\$68.09	the analysis here is an un-
Fox Valley	\$132.50	deretanding of the kinds of
Gateway	\$92.96	armanditures made by the
Lakeshore	\$39.09	expenditures made by the
Madison	\$169.77	lechnical coneges. The
Mid-State	\$35.21	expenditure data used for
Milwaukee	\$285.72	this study are 2005-06 fig-
Moraine Park	\$67.08	ures reported by each of
Nicolet	\$26.59	the colleges to the WTCS.
Northcentral	\$61.77	Districts are required to
Northeast	\$105.72	report spending according
Southwest	\$29.23	to the WTCS Uniform Fi-
Waukesha	\$96.36	nancial Fund Accounting
Western	\$72.25	System (UFFAS).
Wisc. Indianhead	\$60.39	Table 2 of might man

vides a summary of 2005-Table 3 at right pro-JFFAS).

06 district-wide spending

\$1,380.33

Total

and land) and debt service. salaries and fringe benefits, accounted for almost 55% of total spending. The next largest expenditure, accounting by UFFAS category. Compensation, which includes both for 16.3% of the total, was for capital (such as buildings

of the total, includes purchases of items resold to students, ships were 7.8% of all spending. Resale, which was 4.6% of the total. Federal and state grants, loans, and scholarat other locations. staff, and visitors in the colleges' gift shops, cafeterias, or All other spending categories were each less than 8%

WTCS Spending by Expenditure Category 2005-06 Table 3:

00-000	G	
Expenditure Category	Amount	% of Total
Compensation	\$758,207,056	54.9%
Capital Exp. and Debt Service	\$225,056,590	16.3%
Grants/Loans/Scholarships	\$108,281,093	7.8%
Resale	\$63,219,213	4.6%
Professional Contracts	\$54,586,363	4.0%
Supplies	\$36,739,050	2.7%
Utilities	\$20,694,450	1.5%
Insurance	\$14,700,017	1.1%
Travel	\$12,707,098	0.9%
Repairs	\$7,521,732	0.5%
Rentals	\$6,452,017	0.5%
Advertising/Publications	\$5,841,016	0.4%
Student Activities/Clubs	\$5,718,732	0.4%
Professional Development	\$4,879,290	0.4%
Printing/Copying	\$4,839,083	0.4%
Other	\$50,884,414	3.7%
Total	\$1,380,327,214	100.0%

54.9% of the technical benefits, accounted for includes both salaries and Compensation,

Although Wisconsin's technical colleges have many economic impacts, the most direct effect is due to district spending. This section analyzes that spending and provides estimates of the total impact on the state's economy.

INSTITUTIONAL IMPACT

The model used for analysis here measures the inputoutput relationship among industries

Method of Analysis

Technical college spending provides a source of income for approximately 10,000 full-time equivalent employees. It also contributes to the demand for certain goods and services through purchases of equipment, supplies, and other items necessary to run an educational institution.

Some of this spending goes to out-of-state vendors and, as a result, does not impact the state's economy. Most remains in-state and acts as an economic stimulus. This in-state spending is a measure of the direct economic effect of the colleges.

However, these direct expenditures have additional economic benefits. As college employees spend their wages and salaries, they help provide jobs and income for other state residents who work in various industries throughout the state. Similarly, the direct purchases of goods and services by technical colleges also help provide income and jobs in relevant industries. These effects continue to work through the economy in successively smaller amounts, thus multiplying the direct impacts of the technical colleges.

Input-Output Modeling. The most common way to measure these indirect effects is through input-output modelling. This approach measures input and output relationships among industries. The benefit of using an input-output model is its ability to measure all direct and indirect economic effects that result from technical college spending.

The RIMS II input-output model provides multipliers to calculate total impacts on output, earnings, and jobs.

Input-output modeling requires breaking down an institution's spending into the various industries from which it makes purchases. Industry-by-industry spending is fed

into the model to create estimates of total direct and indirect economic impacts. The more detailed the industry breakdown, the more accurate the resulting estimates.

Multipliers. For each industry, the model generates three multipliers. The magnitude of the multiplier depends on factors such as the size of the area studied and the relationships between that industry and other industries in the study area.

An output multiplier tells us the total economic impact (statewide in this study) resulting from a one dollar increase in demand for a particular industry's goods or services. The earnings multiplier is an estimate of the increase in earnings due to a one dollar increase in industry demand. Finally, an employment multiplier reflects the number of jobs created in the study area for each \$1 million of new demand in the industry.

RIMS II. Several input-output models are available to researchers. Each model is constructed differently, resulting in slightly different multipliers from model to model. For this project, the Regional Input-Output Modelling System II (RIMS II) is used. RIMS II was developed by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA), and is respected as an industry standard for estimating economic impacts.

The RIMS II model is based on BEA's national inputoutput table. In addition, data from the agency's regional
economic accounts are used to reflect regional industrial
structures and trading patterns. The model has several
advantages. First, empirical tests have shown RIMS II
produces multipliers not substantially different from those
generated by regional models that use expensive survey
data. Second, the level of industry detail provided helps
prevent aggregation errors. Third, the RIMS II multipliers
are based on a consistent set of data across regions, making comparisons across study areas valid. Finally, the model

is current, using the most recent local wage, salary, and income data.

Expenditures. To estimate the economic impact of technical college spending, each of the UFFAS expenditure categories was translated into the industries used by the RIMS II model. Unfortunately, many of the UFFAS categories are broad and do not convert easily to RIMS II industry groupings.

To assist in creating a crosswalk between UFFAS categories and RIMS II industries, technical college business offices were asked to provide detail on many of their expenditures. For example, the UFFAS spending category "travel" was further divided into airfare, hotels, mileage, meals, and registrations. These finer categories are more easily translated into RIMS II industries. Other UFFAS spending areas in which additional detail was provided were duplicating, utilities, and resale goods (items purchased by the colleges for resale on the campuses). With this additional level of detail, all in-state technical college spending was matched to RIMS II industries.

Expenditures Without Impact. Not all spending detailed on page seven has a measurable impact on Wisconsin's economy. For example, grants, loans, and scholarships are recycled back to the college as tuition payments or other expenditures. To the extent that students spend this money outside the technical college system, a small economic impact can occur. However, that effect will be small, and the data to measure it are not available. Further, some of the colleges' purchases are from other colleges or from other departments within the college. These purchases do not impact the economy.

Included in capital expenditures is the purchase of land. Most studies of this type exclude land purchases, as asset transfers do not contribute to final economic demand. Again, there may be a small impact to the extent that the

former land owners use the sale to generate income that is spent in Wisconsin. However, we do not have the data to measure this effect. Moreover, total land purchases in 2005-06 were small, totalling \$1.6 million, and are thus excluded from the analysis.

Finally, since this study measures the impact of the technical colleges on the state economy, out-of-state expenditures are excluded. Each of the colleges was helpful in estimating the percentage of their purchases from out-of-state vendors. Using these figures, we were able to estimate that 65.5% of WTCS non-compensation purchases were made in state, thus impacting the state's economy.

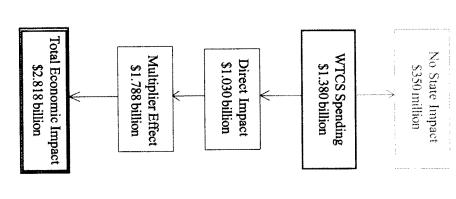
Economic Impacts

Total technical college in-state spending was used to estimate one part of the impact of the colleges on Wisconsin's economy. In total, \$1.030 billion, or 75%, of the technical colleges' expenditures directly impacted the state's economy. As this spending cycled through the state economy, additional output, earnings, and employment are created. Based on the RIMS II multipliers, the following impacts were calculated.

Output. Of the \$1.380 billion of total spending, 75% (or \$1.030 billion) directly impacted the economy, while \$350 million was either spent outside the state or did not affect the state economy (see Figure 3 at right). As the in-state spending filtered through the economy, an additional \$1.788 billion of output was created, bringing the technical colleges' total impact to more than \$2.8 billion.

Input-output models do not specify the time frame during which the economic activity is multiplied through the economy. However, it is generally assumed that these models are estimating short-term economic effects. Thus, to provide context, we report impacts as a percentage of 2005 statewide economic values.

WTCS's 2005-06
Spending and Its Impact on Wisconsin's Economy



At \$2.818 billion, the technical colleges' economic impact from spending was about 1.3% of total state output.

late the earnings impacts.

Wisconsin's estimated 2005 gross state product (total output) was \$216.3 billion. At \$2.818 billion, the technical colleges' economic impact from spending, both direct and indirect, was approximately 1.30% of this total.

Earnings. A second way to look at the colleges' impact is through their effect on statewide earnings. This effect is captured as part of the "output effect" previously discussed. However, the RIMS II model allows us to iso-

As previously mentioned, technical college spending affects in-state earnings in two ways. First, the colleges paid employees \$540.6 million in salaries and wages in 2005-06 (see Figure 4 at right). Second, as total technical college spending worked its way through the state economy, additional earnings were generated in affected industries. The RIMS II model estimates these indirect earnings effects

Secondary effects generated additional earnings of \$525.6 million, bringing total earnings created by technical college spending to \$1.1 billion. That amount represented 1.0% of total 2005 state wage and salary disbursements.

Employment. The final economic impact that the RIMS II model allows us to measure is on employment. Technical colleges employed 9,998 FTE employees in 2005-06. College spending, along with that of their employees, was responsible for an additional 15,465 FTE jobs statewide. In total, technical college spending accounted for 25,461 jobs.

In addition to the 10,000 jobs in the system, technical college spending contri-

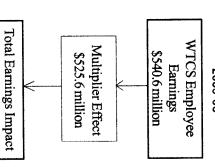
buted to the creation of an additional 15,465 jobs

Providing context for this jobs figure is difficult because there are no estimates of the number of statewide FTE jobs. Rather, the Bureau of Labor Statistics (BLS) reports the total number of jobs, which includes both full-time and part-time. The 25,461 jobs figure represented 0.72% of the 2005 BLS figure.

Figure 4: WTCS's Estimated Earnings Generation 2005-06

Tax Revenue Generation

Not only do technical col-



same way.

Business taxes are also generated. Although technical colleges generally do not

leges contribute to the state economy, their spending generates tax revenues in several ways. College employees pay income taxes on their earnings, sales taxes on their spending, and property taxes on their homes. Additionally, earnings generated through "multiplier effects" provide further tax revenues in the

\$1,066.1 million

pay these taxes, many of their suppliers do.

Although individuals and businesses pay property taxes, the economic activity created by the technical colleges does not necessarily generate additional property taxes. Each year, property taxes levied by schools, counties, and municipalities are set at levels needed by each unit of government. If, due to additional economic activity generated by technical colleges, there is more or higher-valued property, the local property tax rate will fall and revenues will be unchanged. Therefore, this report assumes there is no additional property tax generated from technical college operation.

To estimate state individual income, sales, and corporate income taxes generated, we examine relationships between collections and state output, earnings, and income. Using these relationships, we estimate state tax collections resulting from technical college spending.

Our estimates indicate that approximately \$88.4 million in-state individual income, sales, and corporate income taxes are a result of the economic activity generated by the technical colleges. That amount represented 56.9% of the \$155.3 million state investment in 2005-06.

Leveraging Tax Dollars

Combined state and local taxes flowing to the state's technical colleges totalled \$777.7 million in 2005-06. That money was leveraged with federal dollars, student tuition and fees, and other institutional money to generate more than \$2.8 billion of economic output, or a return of nearly four times.

STUDENT ECONOMIC IMPACTS

In addition to institutional impacts, technical colleges generate economic effects through the students they educate. On average, a recipient of an associate degree will have greater lifetime earnings than a high school graduate. The same can generally be said of an individual with a one-or two-year technical diploma. This section provides estimates of those impacts.

Profile of Technical College Graduates 2005-06

Avg. Sem's to Med.

	Grad's	Age	Grad's Age Grad. Salary	Salary
Applied Associate Deg.	8,452	29.2	5.6	\$32,004
Collegiate Transfer	318	26.7	5.7	na
Apprenticeship	869	29.1	6.3	na
Two-Year Tech. Dipl.	365	23.4	4.4	\$28,494
One-Year Tech. Dipl.	4,080	27.8	3.3	\$25,644
Short Term Tech. Dipl.	8,708	27.1	1.4	\$22,672
Total	22,792 28.0	28.0	3.6	

Graduates and Programs

Wisconsin technical colleges produce students with a variety of diplomas or degrees. Most graduates obtain either a short-term technical diploma or an applied associate degree (see Table 4 below). One-year technical diplomas are also popular. The collegiate transfer program, available on only three campuses, is the smallest of these degree programs. A total of 22,792 students graduated from all educational programs in 2005-06.

WTCS surveys its recent graduates to gather information on employment and earnings. The median (half lower, half higher) salary for 2005 graduates of the various degree programs is also listed in the table. Graduates with an applied associate degree earned the most (\$32,004), followed by those with a two-year technical diploma (\$28,494).

Economic Impacts

We measure the economic impact of the education provided by the technical colleges differently from most studies. Others generally report lifetime earnings gains from education by estimating the additional income a student with a specific degree would earn compared to a similar individual with only a high school education.

Instead, this study focuses on how that additional income translates into economic activity. To do that, estimates of individual earnings by education level and age are needed.

Earnings Estimates. U.S. Census figures on earnings by age and education level are used. When available, we use state-level data. Otherwise, national figures are adjusted to match Wisconsin wage characteristics.

Wisconsin's wage structure differs from the nation's in an important way, The average wage for a high school graduate here is 4% to 6% higher than the national average. However, average earnings for individuals with a

Wisconsin's wage structure differs from the nation's in that high school graduates tend to have above-average earnings; college graduates tend to earn less than other similarly educated workers

Table 5:
Estimated Annual
Earnings by Age and
Education

	Age 25-29 30-34 35-39	H.S. Dipl. \$26,611 \$30,934 \$32,618
	30-34 35-39	\$30,934 \$32,618
	40-44	\$35,011
	45-49	\$35,497
	50-54	\$36,045
-	55-59	\$34,387
	60-64	\$33,466

The average annual gain for an associate degree generally rises with age, reaching more than \$8,000 for workers 60 to 64.

bachelors degree are below national norms. For those individuals with "some college" but not a bachelors degree, average pay is near the national norm according to Census data. Other data sources report pay for Wisconsinites with associate degrees above the national norm. One recent study cited the median (half higher, half lower) Wisconsin pay for a worker with an associate degree as more than one dollar per hour above the national median.

Estimated 2005 average annual earnings by age and education are shown in table 5 on page 11. The average gain for an associate degree generally rises with age, starting at \$5,342 for individuals 25 to 29 and climbing to more than \$8,000 for workers age 60 to 64.

The estimates for the associate degree appear consistent with WTCS's follow-up report. For 2005 graduates, the median annual wage for someone with an associate degree graduate was \$32,004; the Census figures for someone 25 to 29 was \$31,953.

Estimating gains for other graduates was more difficult because Census data are not available for the technical diplomas. The Census reports figures for individuals with "some college," which would include all individuals attending a college or university yet not receiving a degree. It would also include graduates with a technical diploma.

The estimated annual wage for a Wisconsin resident aged 25 to 29 with "some college" was \$29,774 in 2005. This is slightly above the median earnings of a technical college graduate with a two-year technical diploma (\$28,494). However, it is significantly higher than graduates with one-year (\$25,644) or short-term (\$22,672) diplomas.

generated an additional

Technical college education

\$1.732 billion in 2006

Wisconsin earnings for

graduates.

Census estimates for "some college" along with WTCS's follow-up survey are used to estimate earnings gains for individuals with two-year technical diplomas. For

the shorter term diplomas, some assumptions are necessary. First, we assume that graduates with one-year and short-term diplomas earn more than they would if they did not earn the diploma. Second, we assume that lifetime returns are positive, but less than those for the two-year diploma.

Estimated Impacts. To be consistent with previously reported institutional estimates, the one-year impact of technical college graduates on the state economy is estimated. We begin with annual figures on the number of graduates by program area. We then estimate the graduates' ages in 2006 based on year of graduation. Finally, depending on the individual's age and degree, we estimate the additional earnings gained in 2006 from that education.

Because not all graduates remain in the labor force, and not all stay in the state, we make assumptions about these percentages. Based on WTCS's graduate follow-up reports, we assume 95% of graduates are employed and 90% remain in state. These estimates will have some error to the extent that workers change employment status or leave the state in years after the follow-up survey.

Given our assumptions, technical college education generated an additional \$1.732 billion in 2006 Wisconsin earnings for graduates. After adjusting for taxes paid (federal, state, and local), for saving, and for out-of-state spending, a total of \$1.380 billion in additional earnings was spent in Wisconsin, contributing to the state's economy.

The additional household spending from those earnings translated into \$4.090 billion in total state output, \$2.398 billion in earnings statewide, and 24,151 jobs.

Tax Revenues Generated. As with the technical college spending impacts, these "earnings impacts" create additional state tax revenues. Again, we estimate only the additional state income and sales taxes. The additional

earnings may also generate other state revenues, but we do not have the data to estimate them, and they likely would be small relative to state income and sales taxes.

Based on the total output and earnings reported above, an estimated \$192.1 million in state taxes can be attributed to the educational gains from technical college education. This amount is more than double the estimated taxes generated from technical college spending.

Return on Investment

Typically, the return on investment for a graduate is calculated as the additional lifetime earnings gains relative to the individual's educational investment. These gains would then be summed across all graduates from a particular year to estimate the total returns.

In this study, we estimated the earnings gains in one year for many cohorts of graduates. Nearly all of the earnings gains are from past investments, not from those in 2005-06. Thus, we cannot calculate a return on investment consistent with the one previously reported for technical college spending.

However, an alternative calculation can be made; the additional earnings for 2005-06 graduates relative to the state-local investment in those students. This return cannot be compared with our previous calculation. That estimate was total output generated relative to state-local spent. This calculation is the current value of future earnings relative to state-local investment.

We estimate that \$360.6 million of state-local taxes were invested in the 2005-06 graduates during their course of study. That money was leveraged with student tuition and fees, federal dollars, and other revenues. Over their life-times, these graduates are estimated to earn (in 2006 dollars) an additional \$2.11 billion over what they would have earned as high school graduates. These additional earn-

ings represent a return on state and local tax investment of nearly six.

These additional earnings will also be translated into higher levels of output in future years. Our model is not designed to estimate these output increases.

Additionally, these higher earnings will translate into more state income and sales taxes. However, because we don't know about future income or sales tax rates, we cannot estimate this impact.

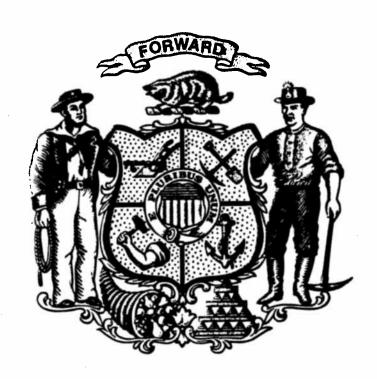
TOTAL IMPACTS

When the economic impact of 2005-06 technical college spending is combined with the effects of the earnings gains from current and past graduates, the annual total impact from the colleges was \$6.91 billion. That figure represented 3.2% of the 2005 state total.

In terms of jobs, 49,612 could be attributed to the technical colleges, or 1.4% of the total statewide. Finally, approximately \$3.46 billion of annual earnings was attributable to the colleges. That figure was 3.4% of all Wisconsin earnings.

The economic activity generated from these earnings gains and from the economic impact from the colleges' spending generated a total of \$280.5 million in state income and sales tax revenues. As previously mentioned, these are lower bounds as the earnings gains from non-graduates, non-programs students, and basic education students are not included.

When the economic impact of technical college spending is combined with the effects of the earnings gains from graduates, a total of \$6.91 billion of 2005-06 state output could be attributed to the colleges.



- Flaving Outcomes - 46,90 Gobal Standards - \ \ 57 years - arerage Maybe National Standards on Greater Detrical standards through grand Totem Thould develop evaluations Theisurement of Standards fu instructural Warleforce Employee Relations Connection, Sinding auditration aditation - Start Minumum # Thaus - Mullenie

Rules for liberal auto
(Succeed to fallow)

Will hours haved nominate three persons & government dicides —