

RISE, College of Science S- STEM, LSAMP and Sci 1

2014 Report

7KH 6-68 5,6(3URJUDP DER WKHX QDMLR QDIO QV KW LWN WSHUR JU
IXQGHG LQ IRU IRXU \H DU V HQHZ DODZDQ/ DD ZIRUP SHU U W U
ILYH \H DU V ± 7KH R D, Q V SWRUJ WDRP Q Q FUDHLQV
UDWH RI XQGHUUHSUHVHQWHG PLQ FUDLOW 67(W XIGHQ Q W D Q 5 Q W
HQFRXUDJH WKHVH VWXGHQWV WR FBQ W LHQ X H WFRK 3FD UGHUJUVH
JHW SDLG DQ KR XU O\ ZDJH WR SHU \$ R Q (P V W X G H Q W V F K E X W W E H 6
850 VWXGHQWV 86 & L W L J H Q V RU O H U M D Q Q U B V E G R H Q H G V L F Z L O V K L
PDLQWDLQ D *3\$ DERYH D 5,6(S Q V R S D F R M L L Y G L H M L H X Q I Q R U Q
ZKLFK EHQHILW PDQGH R W W K H U 26 V K 8 U D V D W R Y L W R P I S O S I D W H O L I X C
LQFOXGH

D 6XPPHU &KHP \$ 3UHS DUDWLRQ & R S H Q H W R 7 Z O R Z G H 6 8
SODQQLQJ RQ WDN D Q J S & K R Y P G \$ I V X G S S R N U W R U R 8 5 D 6 W H Q W E W X G H
SDUWLFLSDWH 6 W X G H Q W V D F Z K I R Y E W Q V L V W H Q W O \ D W W Q H Q G W K L
SDVVLQJ UDWH LQ &KHP \$

E 0DWK 6XPPHU , QWHQVLYH IRU B D H F X D X O V X L Q X W U E G 7 X F U W L H R
850 IUHVKPDQ 6WLSHQG IRU WKHEV W 6 \$ 3 0 3 Q W K I D Q Q H P D Y W H H U I D D
LQFRPLQJ VWXGHQWV WR 5,6(/6\$03 DQG 6 67(0

F 6FL ± \$FDGHPLF ([FHOOHQFH URQ I N Q K Z R S U V N ± K R F S O V O W D R X U
IDFLOLWDWRUV WR D W 6 - 6 8 Q H S J E G M L W R Q Q E B X L V Q D F K P H G W L Q D F W W G L Q
RQ WKH VXFFHVV RI IDFLOLWDWRUV

G 5HVH D U F K 7 H F K Q L T X H V : R U N V K R S W 6 ± 6 8 D I D F X O R Q \ Z R R J N K V H
OHDUQ DQG REWDHL Q F K I D Z L G W K R Q W I K H S U H U H V H H D U H F Y D Q M F M R L W K H
VDIH XVH RI W D G L R L F R W R R S E J H W F

5,6(6WXGHQW 'HPRJUDSKL FV

- 1XPEHU RI 6-68 \$ 5, Q V W X S W R ±
- *HQQHU ± IHPDOH KQLFLW \ ± (W +LVSDQLF
- 5DFH ± \$ I U L F D Q D \$ E H L F L F D Q D Q G \$ P U H L F I D Q V L Y H
- 0DMRU ± % L R J R Q H H U L Q J & K H P L V W U \

5HVXOWV

1XPEHU RI VWXGH Q W R U Z I R H F R P S O Y M H D Q V D I G S I U R J R Q D Q U H
ZHUH UHPRYHG GXHDWR RFQIDQ JIR L O M H G K U S P R Q F H U D Q I G \$ R V W F
PHQWRUHG E \ ' U 6LQJPDVWHU

*UDGXDWLRQ UH D D Q W L R Q G H D W W V Z K R F R P S O H W H G W K H S U
JUDGXDWHG ZLWK D 67(0 GHJUHH RU 67(0 G M L L O C H H S O R V I O R G
WKDW VRPH RI W K H V H G D W X B H Q W K P D Q Q G H D R U W R H V L K H N U Z H V U H 3 F D
7KH VWXGHQWV ZK R H P R M L J Q H G R R E G O R K D Y D Y H U E H G X O W H W D L Q
PDMRUV ZLWK WKH H [F H S W L R Q R I U R Q R Q D V X G V Q W V Z K R K O N I W K E
JUDGXDWLRQ U H Q W L W L R Q G H D W W V Z I R H O S I U R J O D I S I L U R P

&RQWLQXDWLRQ WR J D D F Y D Q F H O G H W H Q S W L Q V D R 0' 3K' S U F
VWXGHQWV V W D U O W H I G D Q Q G F R R S O H M D H S 7 0 D S U L R W H I R Q V L V Q X G H Q W
V W D U W H G R U Z I L O G K E H S V R D U D P L V Q J W L W W K H L Q F O G X B H G V I D L V U H S R U
\$ZDUGV ±)LYH IRUPHU 5,6(VWXGH Q W W H R D F K I) H F O X R Z H G K I 6)
V H F X U H G D) R U G) R X Q G D W L R Q ' L V V H U W D W L R Q) H O O R Z V K L S D

6-68 6 67(0 3URJWDXPHV&LRO OHJH RI 6FLHQFH
6FKRODUV LQ 6FLHQFH ±
&ROOHJH RI 6FLHQFHHD 5KLVGD 6FKRODUV

7KH &ROOHJH RI 6FLHQFH 6 67(0 SUBJ6FLHQFH X)Q&EG DEW
WKH ILUVW IRXU \HDUV WKH SURJUDP ZDV FDOOIGU 6FWR 6RW
VHFRQG JUDQW ZDV VHFUXHG OHG &R.OGHUHFV 6RVMQFH
7HDFKLQJ 6FKRODUV 7KH JRDO RODWKLKLSU RWB DWPVIXG HCRWSU
ILQDQFLDO QHHG 7KHVH VWXGHGWG/HB XHW VHLW 67 UO FRQJWLQ
WHDFKLQJ FDUHHUV RU FDUHHUV DW VEHLXQGHUWMDG XDW HO
&LWLJHQV RU OIHW XG HFO DGHG VDPH PRUW ULQ \$K RQLFJA JHKORJ\
DQG PXVW PDLQWDLQ D *3\$ DERYH D GLQJ7 KH VPDX GPHQW DFR
SHU VHPHVWHU

6 67(0 6WXGHQW 'HPRJUDSKLFV
1XPEHU RI 6-68XG 67(WW XS WR ±
*HQQHU ± IHPDOH \ ± +LVSDQLFW K Q
5DFH ± \$IULFDQ \$PHULFDQ \$VLDQ 1DWLYH \$PHUL
0DMRU ± %LRFLR\U\ &KHRORJRORJ\0HW3KRVLFV

5HVXOWV
1XPEHU RI VWXGHQWV ZKR DFPRYHWLQ WKKUH SURJVLJQH G R
UHPRYHG GXH WR FQDOJRDQVH 6X FSDVLEHJUDGH SRIDROJHU KD
QHHG
*UDGXDWLRQ UHW 67(0 WLVXGHQWV ZKR FRPSOHWHG WKH SU
JUDGXDWHG ZLWK D 67(0 GHJUHH RU 67(0 GMLLOCHH SURJHO OFG
VWXGHQWV ZKR UHPRYHG GDOU FZ HDUROUKDYH JEHGX DW WGLQH G
ZLWK WKH H[FHSQWRZKR RORW VEWK XH VRI SHUVRQDO
&RQLQXDWLRQ WRJDDFDQ FGHY 67(0 VJHDFH SVW DG MCH G RU ZLQ
67(0 3K' SURJUDPV DQGUW HGH 67(0 6V SU R QOD PRQ 6 R KD VWDUV
WHDFKLQJ FUHGHWLDO SURJUDGH GVDWRWMLKLV KGHQVW VQG V
\$ZDUGV ± 6R ID 67(0 WLVXGHQWV GRIQVHU 67(0 YH G XDXUH GHVHDFK)

6FL \$FDGHP LF :RBNORSV

± FXUUHQW

7KH \$FDGHP LF ([FHOOHQFH :RUNVKRS DUDLQ JS BFW LOHLW L
 ZLWK VHOHFWHG JDWHZD\ FRXUVHV IROS 7 (OW & B HQPHW V H7K F
 SUREOHP VROYLQJ LQ D PRUH VWUXGHV WGR HQYD U R Q PM R W
 67(0 FODVV LQ D VXSSRUWLYH DWP SVZKHU R UL) XQQDQQ\ IRUR P
 1,+ 0\$5& 3URJUDP 5HGFWLRQV LQ 1G+LQ\$6&LIX QGILQJ KXQ
 E\ WKH 5,6(3URJUDP \$ UHTXHVW ZDV V XER LKHV BGV XFS R3W)
 6FL ZRUNVKRSV %HFDXVH RI WKHD OHPY R OXGQWHDUR X VFWXG M
 HQFRXUDJHG EXRWQRW XSITXUUGFRW 6FKH BHHHOLWWHG EHOR

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%LRJUDSKLHV 5R6(6607 FOWDGG /6\$03 6WXGHQW

(GZLQ -R\D LV D 0HFKLDLQJF D W X Q H I Q W L Z L Q W K Q D F R
'HVLJQ DW 6DQ -RVH 6WDWH 8QLY HDGIXW W H -16Q W D Q H
:KLOH DW 6-68 (GZLQ KDV H[FH 00 B 00 B 00 G H P L Q
FRPPXQLW\ +H KDV PDLQWDLQH G DRXV *B W X D G H Q W
RUJDQL]DWLRQV VXFK DV WKH 6RFLHWW R62//D 0V LQR (1
0H[LFDQ \$PHULFDQ (0LQWLVHW W D Q G 0FDQ G WKH *RO
,QWHUQDWLRQDO +RQRXU 6RFLHW\

(GZLQ KDV EHHQ W H D Z E D G H P G F I R U F K I G Q L Q Q F H Z K L C
6-68 +H LV DQ (QJLQHHLQJ /HDGH W W K S S O G P L S L F
+H ZDV DZD U G W G Q W W H L R Q R I & K D U O H V Q J L Q M H G V L R Q &
'HDQ V 6FKRODU UHFLSLHQW IRU WKH \HDU V D Q G
5HFLSLHQWV DWWDLQ WKLV VWDW X Q W E W D F H K D W W L V Z
FRQWLJXR XV VHPHVWHUV RI WKHKM K L R Q R S V H Y L R X V

&RQYRFDWLRQ

7KURXJK WKH *ROGHQ .H\ ,QWHUQDWLRQDO YOH Q R V Q R X Q W 16 Q F H H W W Q J
IURP WKH 8QLWHG 6WDWHV VHOR E W E G F K R S D U W D R U S I D W W H 13Q R V K H D
OHDUQ DERXW WKHLU WHFKQRORJ H Q D O Q D H Y U L Q B H P F F R V P S O L Q G R W H Q W
KH ZHQW WR WKH 20H P S H L F O H U H Q Q H G Z Q B R X M H W K Q J J W H F R Q L T X H V X V H
1DWLRQDO \$TXDWLFV &HQWHU 3: D W W L U Q X E H H G D Q Z H K O H O % D M M L K Q J X O
3%LUG V 1HVW ' XULQJ KLV WULHV K P D Q V R L F K D Q W F Z K H W K H R Q K H H R H
HQJLQHHLU OHF V Q S H R F R Q W X V H G H L Q K W K P D S I R R M E F Q H D Q V V R I U H Q H

(GZLQ V SDUWLF L S D W L R Q Z L W K & 68 R 6 S R Q G D F W K H P V W K L F R S S E
3URIHVVRU *LOOHV 0XOOHU +H S H M R H Q W G O H Q F W W D O W L G Q F R F S Q V R K
WR FKDUDFWHUL]H WKHLU VWUX K W X R S O L F Q D S P L F S H V S W E M W R V F R S L

(GZLQ KDV DOVR JLYHQ EDFN WR KLHQFR Z P W Q L 6 2 V (W K B I R Q E K K L V
\HDU DW 6-68 KH M D R V S Y R U O X L Q F W S I D W H I G U Q Q G J L H Q F H 6 ([W U D R Q H G D \ H
FDPSXV ZKHUH RY K B R O P W Q G G Q W V H G R P U X I O G H R I S U L Q L Q W H S D U W L F
HGXFDFWLRQDO ZRBN G K R S W R K H Q F R S H Q D W V H W R K H D V H V S Q G V F R O D H G I H J D F
WKH 67(0 ILHOGV (GZLQ R K D W K H E H F Q E S R F R P P [W W U D Y H J D Q G K D V K H O G W
ZRUNVKRS FRRUGL Q B W R S V D Q G R V H D V R K O S H B R U L Q L Q K D W R J H R I U H F U X L
SURIHVVRQDOV W R K S D W Q Z D Q G R S U N W K R S W I R P H 6 W L P W K H G H Y H O R S H
HQJLQHHLU QJ ZRUNVKRS DQ G W U D E Q X G G H L D K W O E R D O W H U H W W G X G H Q V

(GZLQ DVSLUHV WR REWDLQ DQ 0 6 L Q Q F R R K D L Q L X F D O R Q H Q R R K U
VWXGHQWV LQ KLV Q F B P I X J K L H W \ H G R X D W W H D G V L Q W R K W H 6 (GZLQ V W Z R
0RQLFD DQ G 2VFDU Z H U X G B Q W R D S 0 G 6 8 U D H G / K D Y P H % K D Q L F D O H Q J

\$OH[L D 3HUU\PDQ R D M D W I R S K R R R K H P L V W U
FRQFHQWUDWLRQ 6 D Q % - I R R V K H P I D W W H H B S H M V W U W L R V
JUDGXDWLQ LQ 6 S U E D Q P @ P @ H H D R I G H U V R P R 0 A 0 Q W

FRPPXQLW\ LQYROYHPHQW DQG SURYHLCGLQHCHGDXFDWLRQROR D EVRX X/G H/E
DFWLYH PHPEHU RI)RUHQVLF 6FLHQFH 6WXGHQWV & OXE
\$OH[LD KDV UHFHQWO\ MRLQH G & KHUPLWMDU F3U BUHRXSRZK \$OEHVU
ZRUNLQJ RQ WKHQ L VROG WLSRCH VVO RSLRRW HD P R VETROVH BYHGG VLQ EIO RR
GLJHVWLRQ 7KLV HQ]\PH NQRZQ DVI SHG 3DQ Q Q DVUR UHFHH QV O \ HEWHLQ F
HQ]\PH LQ YLWUR 6KH ZLOO EH LQPRKD XUWR RIF FSR OIQGJ KIRSH UXHQA
RQFH LW LV H[SUHVHVG LQ EDFWHUOLHD ZDMR DQVR \$OH[6DQ/ 6LQW H U
5,6(6KH JUDGXDWHG BQLGQ Z HGO REHG X VV H VSLQRJ D D J D Q]RRORJ\ DW :
8QLYHUVLW\

ORQLFD .DSLO JUDGXDWHG IURP 6DQ -RVH 6WDWH
8QLYHUVLW\ LQ OD\ RI ZLWK D %6 GHJUHH LQ
OHFKDQLFDO (QJLQHHULQJ \$V DQ XQGHUJUDGXDWH
ORQLFD FRQGXFWHG UHVHDFK DW WKH OLFURHOHFWR
PHFKDQLFDO 6\VWHPV 0(06 ODERUDWRU\ XQGHU WKH

IXOO ORDG RI FRXUVHV ZKLFK FOWD KOP PIR MFLW B W HG W K3 \$R X J K DW
ODERUDWRU\ SRUWLRQ RI VFLHQFH B B X D Q H G \$W K W K I H H R G R P V H S U

1DPH

5,6(/6\$03 6 67(0 DQGL0EWDWRUV LQ *UDGXDWH 3URJU
'HJUHH 0DMRU *UDGXDWH 6FKRRO 'HJUHH /6\$03 5,6(5H\$HDU67(0RPPHQWV
6WDUWHG \$GYLVRU)DFLOLWDWRU

1DPH 'HJUHH ODMRU *UDGXDWH 6FKRRO 'HJUHH / 6\$DU5,6(5H\$HDU6K7(ORPPHQWV
6WDUWHG \$GYLVRU)DFLOLWDWRU
6HLSHUW 6WHYHQ 0D\ \$HUR (QJ 6WDQIRUG 06 1;\$
&KDLGHJ 9HURQLFD 0D\ %LRORJ\ 6DXGL \$UDELD 06; 3DUU D
5RGULJXHJ \$PDQGD 0D\ %LRORJ\ %D\ORU 3K' &ROOLQV ; ;
&DODEUHWWD 3KLO 0D\ &KHPLVWU\ 8 RI :LVFRQVLQ 3K' ; (JJHUV

1DPH 'HJUHH 0DMRU *UDGXDWH 6FKRRO 'HJUHH /&H0U5,65HV\$H0U6K7(ORPPHQWV
 6WDUWHG \$GYLVRU)DFLOLWDWRU
 5REHUWV \$XVWLQ 0D\ &KHPLVWU\ 8 RI \$OEDQ\ 3K'; ; 7HUULOOD;
)UDQFR -R\ 0D\ 0HFK (QJ 6WDQIRUG 3K' ; :LONLQVRQ ; D
 %DJOH\ 5LFKDUG 0D\ 0HWHRURORJ\ 6-68 06 &OHPHQWV ;
 &UXNRY *UHWD 0D\ 3K\VLV .HQW 6WDWH 3K' %H\HUVGRUI
 3LOOLQJ 0LFKDHO 0D\ 3K\VLV 6-68 06 7DLHGL +HLQG;O

 16) *UDGXDWHK)H0VORZVU \UV
 .DSLO 0RQLFD 0D\ 0HFK (QJ 8 & %HUNHOH\ 3K' ; - /HH ;
 &KDYH] 1DWDOLH 0D\ %LRORJ\ %URZQ 3K' ; 6RWR ; ;
 +DOOHU %HQ 0D\ %LRORJ\ 0F*LOO 3K' %URRN
 /H 7KDR 1KL /LO\ 0D\ &KHPLVWU\ 8 & 6DQWD &UX] 3K' &ROOLQV