



STEM Academy for Science Teachers and Leaders: Student Survey Results!

!

!

!

"#\$%!&'()*+,-./!"'0*1'*!#*('2*/3!(1)!
4*()**/35!"67)*16!"7/8*,!9*37:63

A

G(!, G9 1 !V:6*) 7 +!8- /!, :")0:)!G)6: (/!60*!<)6*)/!'!'!6!5/-8) ' "'-06&!*)3)k-5 7)0.!')/")'F!
)'"W0)!. -!' \$55- /!7 " **k)!

C

,G9 1 !V:6*) 7 +!8- /!, :")0:)!G)6: (/!'!60*!<)6*)/'L!, .\$\$*)0.!, \$/3)+!_) '\$&. '!	D
?6:]W/- \$0*!	D
>3)/3")O!-8!.(!#/-b):.!	D
#\$/5- ')!-8!. ("!_)5- /.!	U
E Q	3
#6/.": "56."0W!G)6: (/!'!	U
#6/.": "56."0W!, .\$\$*)0. '!	E
1)6' \$/) '!	A
_)' \$&. '!	Z
K-0:&\$'" -0'!	DI
_)8)/)0:) '!	DE
V55)0*"@!V!c!, :")0:)! 1 -."36." -0!d\$)'. "-006"/)!PP!	DZ
V55)0*"@!?!c!, .\$\$*)0.!, \$/3)+! 1 -*)&!Q\$&&!_) '\$&. '!	D[
V55)0*"@!K!c!, .\$\$*)0.!, \$/3)+!P.) 7!_) '\$&. '!	IU
!	!

STEM Aca

a L a : S

S

S

T a

R

! "#\$%&'()*+

G(!0\$7%)/!-8!,G9 1 J/)&6.)*!b-%'!W/O!.(/)!."7)'!.(!/6.)!-8!0-0J,G9 1 !b-%'!%).O))O!ICCC!
60*!ICDCF!6:-/*"OW!.-!(.)!, 7".(' -0"60!, :)0:)

\$0"3)/'"+!"0'./\$.:"-06&!:-6:(!6"7)*!6!)75(6'"\"OW! '\$'.6"06%"&"+!60*!"75& 7)0.6."-0!-8!.(!)
:-0.)0.!-8!.(!)'\$77)/!6:6*)7)"'F!60*!X%Y!:-&&6%-/6."-0!O".("0!6!5/-8)'"'-06&!&6/0"OW!
:-77\$0"+!X#<KYN!#6/."56."OW!.)6:(!/'!)OW6W)*!"0!.(!)'!O-!: -75-0)0.'!-8!.(!)5/-W/67!)6:(!
+)6/!8-!\$5!.-!(/))!+)6/'N! a)!'\$776/"\)*!.(!)'./\$:.\$/)!60*!:-0.)0.!-8!)6:(!6:6*)7+F!6'!O)&&!6'
)6:(!/'R!5)/:)5."-0!-8!.(!)'\$77)/!6:6*)7)"'F!0!)@'"."OW!)@.)06&!&36&\$6."-0!/5-/.!'!0:&\$*"OWL!

- V:6*)7+!D!"0!ICDA!X#)//+F!_))*)/F!/?/6..6"OF!=6.8")&*F! ; !^)..)/&"OJT)&&)/F!ICDAY!60*!"0!
ICDZ!XV*67 'F!=6.8")&*F!K-@F! ; !^)..)/&"OJT)&&)/F!ICDZY!
- V:6*)7+!I!"0!ICDZ!X#")/:)F!V*67 'F!_(-0)F!=6.8")&*F! ; !^)..)/&"OJT)&&)/F!ICD[Y!60*!"0!
ICD[!X,56/] 'F!V*67 'F!1-.6F!, "7-0F!?\$/.-0F!=6.8")&*F! ; !^)..)/&"OJT)&&)/F!ICD[Y!
- V:6*)7+!U!"0!ICD[!X#")/:)F!K-@F!=6.8")&*F!V*67 'F! ; !^)..)/&"OJT)&&)/F!ICD[Y!

PO!6**"."-0F!O)!*)6"&!.(!)'/\$:.\$/)!60*!:-0.)0.F!6'!O)&&!6'!.!)6:(!/'R!5)/:)5."-0!-8!:-6:(!OW!"0!
.O-!)@.)06&!&/)5-/.!'N! a)!5\$%&"")*!-0)!:-6:(!OW!)36&\$6."-0!/5-/.!'!0!ICDAJDZ!XV*67 'F!=6.8")&*F!
K-@F!1-.6F!,56/] 'F! ; !^)..)/&"OJT)&&)/F!ICDZY!60*!.(!)-.(!/'!O!ICDZJD[!X,56/] 'F!V*67 'F!K-@F!
=6.8")&*F!^)..)/&"OJT)&&)/F!ICD[YN!V!.("/!*!:-6:(!OW!)36&\$6."-0!/5-/.!8-!/ICD[JIC!"!8-/.(:-7"OWN!
!!
G(!)5/-W/67!8-&&-O'!6!:-(-/!7-*)&!O".(!0)O!.)6:(!/'!)0.)/"OW!

!
V'!(-O0!"0!Q"W\$/)!DF!.(!76"0!-\$.: - 7)!-8!.(!, G9 1 !V:6*) 7+!8-:\$')!-0!.)6: (!/!60*!'. \$*)0!
'\$:.)'!"0!, G9 1 N!V0!606&+'""!-8!DUZ!'\$. \$*")!:-0*\$\$.)*!%).O))0!D[ZE!60*!ICCI!'(-O)*!. (6.!

"#\$%&'#!"\$(\$)&*!'"+, -.&!

G()!-3)/6&&'!.\$*)0.!'\$/3)+!'675&)"0:;&\$*)*!ZAB!'.\$*)0.'N!G6%&!U!'(-O'!.())!'.\$*)0.!
:(6/6:.)/"'.":'!-3)/6&&F!6'!O)&&6'!*"'6WW/)W6.)*!%+!+)6/!60*!%+!:-(-/.N!PO!W)0)/6&&F!.())!7 6b-/"'.+!-8!
'.\$*)0.'!O)/)!="!560":F!):-0-7":6&&+!*"'6*360.6W)*!X9 4YF!60*!*"0."8")*!6'!<"7".)*!90W&"'(!
#/-8":")0.!X<9#YN

Measures

!

''#\$%&'#!''\$()&*!

•

•

•

•

•

6-7/0)\$89!

!

"#\$%&! ' %!(!*#\$!+#, %+\$!+#-#. \$! /!

!

6-7/0)\$:9

; '.), \$#+\$(&)\$.(/,)+(\$./01)<=\$, #\$\$%)\$#>.)01)\$1-,)+2)\$#?\$, -??)0)+(- '@\$2&' +7)\$ '20#..\$.(/,)+(\$./>70#//!.4\$\$

+, -, (#!..!

!

!

!

!

A#�(\$8\$A#)?-2-)+(. \$?#0\$(&)\$F+()0 '2(-#+\$")03.\$

References

G"HE\$12',)3<\$?#0\$
G2-) +2)\$") '2&)0.\$'+, \$D)' ,)0.J\$8KBL\$") '2&)0\$12',)3<\$F\$HI '@/'(-#+

G"HE\$12',)3<\$?#0\$") '2&)0.\$'+, \$D)' ,)0.J\$8KBMNBL\$A#'2&-+7\$'+, \$ODA\$HI '@/'(-#+

?#0\$), /2'(-#+'@'\$'+, \$!.<2�#7-2 '@\$().-+79\$
G('+, '0, . \$

G2-) +2)\$H, /2'(-#+= \$PP

G"HE\$0#', 3 '!J\$

T#/0+ '@\$#?\$O)0.#+ '@-(<\$ '+, \$G#2- '@\$O.<2�#7<=\$MU

O.<2�#7<\$-+\$(&)\$G2&##0.= \$VP

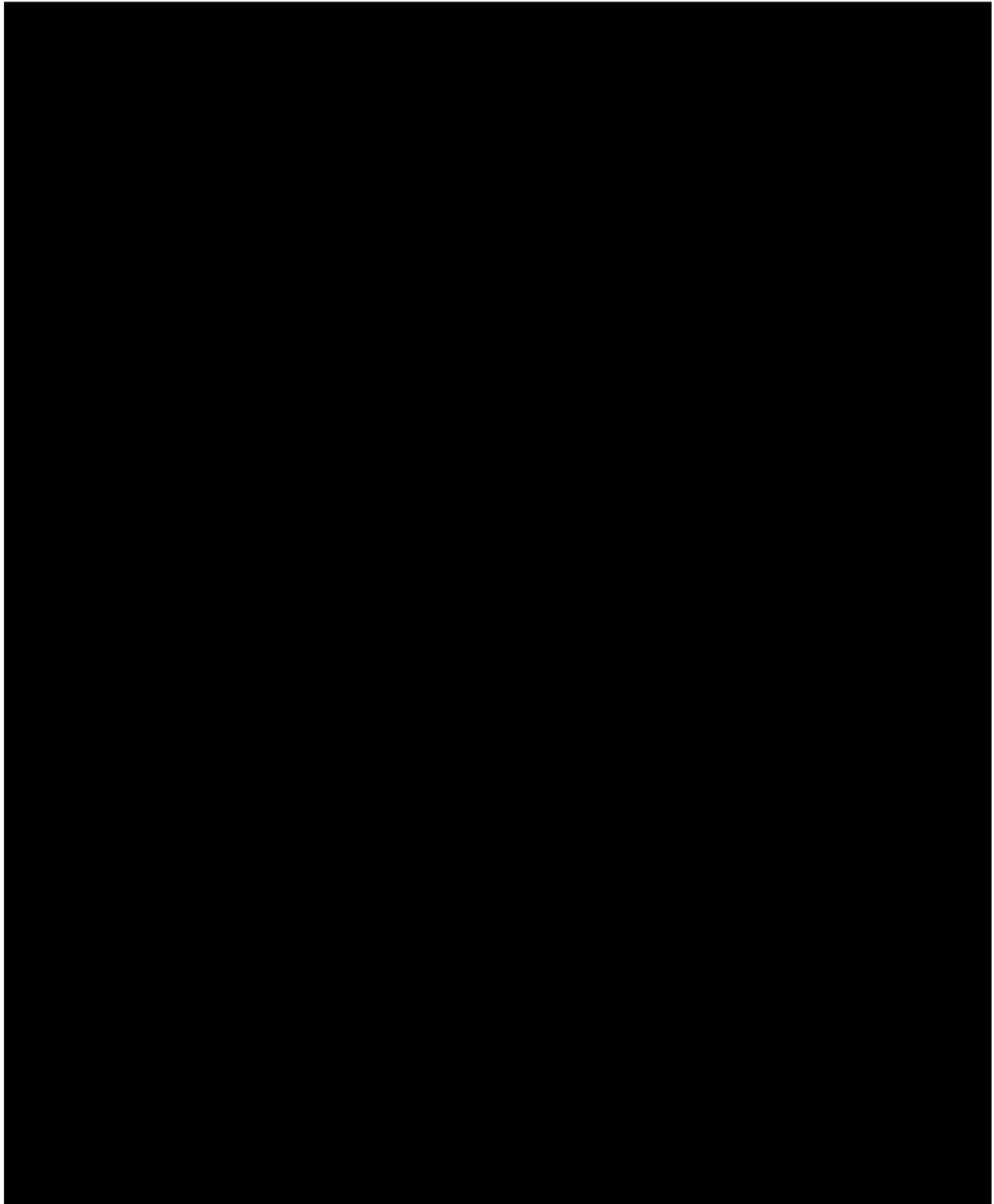
") '2&)0\$H, /2'(-#+=-\$8R

\$T#/0+ '@\$#?\$G2-)+2)\$

F+()0+ '(-#+ '@\$T#/0+ '@\$#?\$G2-)+2)\$ '+, \$E'(&) 3 '(-2.\$H, /2'(-#+ BR

\$G"HE\$I2',)3<\$?#0\$G2-)+2)\$")'2&0.\$'+,\$D)' ,)0.J\$8KBP\$()'2&0\$'2',)3<\$8\$
)I'0/'(-#+

Appendix A – Science Motivation Questionnaire II



A endi B S den S e M del F II Re I

\$%&'(!")!

! "##\$%& ' \$() * '#+*\$, -. \$ / + " 0) 1 + * \$ 2 1 \$ 3 - 4 - . + \$ 5 \$ 6) 7 8 4) . * 9 \$ 3 # 7 * * . - - : * \$

!	!"#\$%&'(!)*+##*(\$,-	1"#"'#-	2'&34	9#":'-
-	!"#\$%&'(!	./+\$0"+\$/*-	./+\$0"+\$/*-	5'+#6\$*"+\$/*-	2'&34733\$,",8-
-	B@+,/6'-	./: '& ; -	./: '& < -	./: '& = -	./: '& > -
-	J#\$/#-K'"#-2LMMN-N'":\$*0-	CDE<FFF-	CDE;FFF-	CD?EFFF-	CD?EFFF-
-	J#\$/#-K'"#-2LMMN- . "+A-	GDCCEH-	GDCCEH-	GDCCEH-	GDCCEH-
-	P&"',Q-	CDCC-	CDCC-	CDCC-	CDCC-
-	T\$(U"*\$,-	GDCCH-	GDCCH-	GDCCH-	GDCCH-
-	V'6"&'-	CDCC-	CDCC-	CDCC-	CDCC-
-		GDCCH-	GDCCH-	GDCCH-	GDCCH-
-		4CD=R-	CD<I-	CD<I-	CD<I-
-		GCD<IH-	GCD=?H-	GCD<SH-	GCD<>H-
-		4CD>C-	CDCC-	CD<I-	4CD<;-
-		GCD<=H-	GCD=CH-	GCD<=H-	GCD<;H-
-		4CD<I-	CD;<-	CD<I-	4CD<=H-
-		GDCSH-	GCD; ;H-	GDCRH-	GDCSH-

2+@: '*+1A"#'+#\$(+)\$(-

"# !

L',A'#-V'6"6'-
-
K'"#
-

C) < E-
GCD < CH-
4C) C ?-
GCD ; IH-

C) = -
GCD < EH-
4C) < = -
GCD << H-

C) < > -
GCD < CH-
4C) ; = -
GCD ; IH-

4C) CE-
GCD ; SH-
4C) ; ?-
GCD ; ?H-

C) C < -
GCD ; IH-
4C) C ?-

\$%&'(!*)!

! "##\$%& ' \$() * " # + * \$, - . \$ / + ' 0) 1 + * \$ 2 1 \$ 3 - 4 - . + \$; \$ 6) 7 8 4) . * 9 \$ 3 # 7 * * . - - : * \$

!) * + # \$ * (\$, -	1 " # ' ' # -	2 ' & 3 4	5 ' + ' # 6 \$ * " + \$ / * -	2 ' & 3 4 7 3 3 \$, " , 8 -	9 # " : ' - . / + \$ 0 " + \$ / * -
-	! " # \$ % & ' -	. / + \$ 0 " + \$ / * -	. / + \$ 0 " + \$ / * -	. / : ' & - ; -	. / : ' & - > -	. / : ' & - ? -
B @ + , / 6 ' -	C D I < F F F -	C D I S F F F -	C D I < F F F -	C D E C F F F -	C D ? E F F F -	
-	G C D C > H -	G C D C > H -	G C D C > H -	G C D C > H -	G C D C ? H -	
J # \$ / # - K ' ' " # - 2 L M M N - N ' " : \$ * 0 -	C D C C -	C D C C -	C D C C -	C D C C -		
-	G C D C C H -	G C D C C H -	G C D C C H -	G C D C C H -	G C D C C H -	
J # \$ / # - K ' ' " # - 2 L M M N - . " + A -	C D C C -	C D C C -	C D C C -	C D C C -	C D C C -	
-	G C D C C H -	G C D C C H -	G C D C C H -	G C D C C H -	G C D C C H -	
P k " , Q -	4 C D C < -	4 C D C ? -	C D C E -	C D C ? -	4 C D C ; -	
-	G C D ; < H -	G C D ; ? H -	G C D ; < H -	G C D ; ; H -	G C D ; ; H -	
T \$ (U " * \$, -	4 C D C ? -	C D C <				

2 + @ : ' * + 1 A " # " , + ' # \$ (+ \$, (-

* " !

** !

A endi C S den S e I em Re I

\$%&'(!"C!

<+):\$=)*8.2>+2?)\$/+7+2*+28*\$,-.\$/+ "0)I+*\$21\$3-4-.\$5\$710\$;\$6)784).*9\$3#7**.-.:*\$78.-**\$62:)\$218#"021@\$+4)\$!"##\$/7:>#)

*F !

!"#\$%&

d

d

d

*G !

!"#\$%&'

d

d

*4 !

d

d

!"#\$%&'

*I !

