Supplemental Table S1. AMA and SIRA variables used to identify exclusion criteria (fracture, dislocation and traumatic brain injury).

	traumatic brain injury)		D	
Source	Variable	Value(s)	Description	
SIRA	Nature of injury	020 (pre-July 2011)	Fracture of vertebral column with or without mention of spinal cord lesion	
SIRA	Nature of injury	112 (post-July 2011)	Fracture of vertebral column without mention of spinal cord lesion	
SIRA	Nature of injury	310 (post-July 2011)	Quadriplegia involving spinal cord injury	
AMA	Item number	MQ305-375	Treatment of fracture, dislocation or fracture-dislocation (SPINE)	
SID A	Nature of injury	030 (pre-July 2011)		
SIRA — Both conditions must be met	Bodily location of injury	 310: Upper back 311: Lower back 318: Back - other and multiple 319: Back - unspecified 	Dislocation	
SIRA	Nature of injury	201 (post-July 2011)	Dislocation	
Both conditions must be met	Bodily location of injury	319: Back - unspecified	Distocation	
SIRA	Payment classification	PBI001-PBI005	Brain injury rehabilitation These codes apply to patients admitted to an inpatient Brain Injury Rehabilitation Program (BIRP) unit, a Transitional Living Unit or to Compensable non- inpatient services.	

Abbreviations: SIRA=State Insurance Regulatory Agency of NSW; AMA=Australian Medical Association List of Medical Services and Fees

Supplemental Table S2. AMA item numbers used to identify surgery type (fusion or	
decompression).	

	Fi	ision	
LT135	Fusion posterior	MT170	Bone graft, poster-lateral fusion,
			1-2
LT145	Fusion posterior	MT180	Bone graft, poster-lateral fusion,
			>21
LT155	Fusion posterior	MT190	Fusion posterior
LT215	Fusion Cervical	MT200	Fusion multi level
MT030	Fusion Scoliosis or kyphosis	MT210	Fusion Anterior 1 level
MT050	Fusion Scoliosis	MT220	Fusion Anterior 1 level - principal
MT055	Fusion Scoliosis or kyphosis	MT230	Fusion Anterior 1 level - assisting
MT080	Fusion Scoliosis	MT240	Anterior multi level
MT090	Fusion Scoliosis, > 4 levels	MT250	Anterior multi level - principal
MT100	Fusion Scoliosis	MT260	Anterior multi level - assisting
MT110	Fusion Scoliosis	MT270	Fusion
MT120	Fusion Scoliosis, congenital	MT280	Fusion - not scoliosis
MT140	Vertebral body, excision, incl.	MT290	Fusion - not scoliosis
	bone graft		
MT145	Vertebral body, disease of,	MT300	Fusion multi level - not scoliosis
	excision an		
MT150	Bone graft, posterior, 1-2 levels	MT310	Fusion multi level - not scoliosis
MT160	Bone graft, posterior, >2 levels		
	Decon	pression	
LT045	Single Level	LT195	Cervical
LT055	Single Level	LT205	Cervical
LT065	Single Level	LT255	Thoracic
LT075	Decompression multi level	LT265	Thoracic
LT165	Single Level (Spinal rhizolysis)	LT275	Thoraco lumbar or high lumbar
LT175	Cervical	MT130	Lumbar, 1+ levels
LT185	Cervical	MT230	Fusion Anterior 1 level - assisting

Abbreviations: AMA=Australian Medical Association List of Medical Services and Fees

Supplemental Table S3. AMA and SIRA variables used to identify spine region (cervical, lumbar).

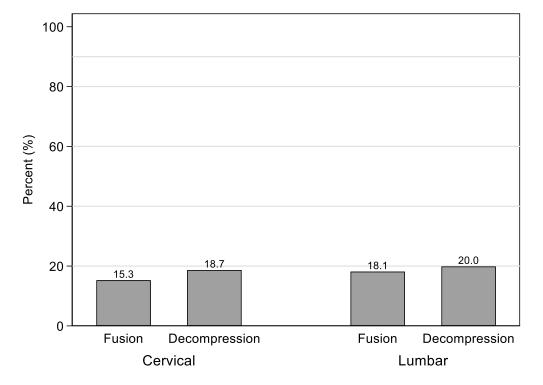
Cervical				
Source	Variable	Value	Description	
		LT215	Cervical decompression of spinal cord	
		MT342	Cervical artificial intervertebral total disc replacement	
AMA	Item number	LT175	Cervical decompression of spinal cord	
		LT185	Cervical decompression of spinal cord	
		LT195	Cervical partial or total discectomy (anterior)	
		LT205	Cervical decompression of spinal cord	
		210	Neck bones, muscles and tendons	
	bodily	218	Neck - other and multiple	
SIRA	location of	219	Neck - unspecified	
	injury	620	Head and neck	
		660	Neck and shoulder	
			Lumbar	
		MT320	Lumbar artificial intervertebral total disc replacement	
		MT330	Lumbar artificial intervertebral total disc replacement	
AMA	Item number	MT340	Lumbar artificial intervertebral total disc replacement	
AMA	nem number	MT130	Percutaneous lumbar partial or total discectomy	
		LT275	Thoraco-lumbar or high lumbar anterior	
		L1273	decompression	
	bodily			
SIRA	location of	311	Lower back	
	injury			

Abbreviations: SIRA=State Insurance Regulatory Agency of NSW; AMA=Australian Medical Association List of Medical Services and Fees

	Fusion	Decompression	
	N=2,762	N=4,279	
Working at full capacity	524 (18.9)	1674 (39.1)	
Working at reduced capacity	354 (12.8)	547 (12.8)	
Not working	1781 (64.4)	1943 (45.4)	
Retired	90 (3.2)	108 (2.5)	
Deceased	13 (0.5)	7 (0.2)	

Supplemental Table S4. Return-to-work status at 24 months post-surgery, by surgery type

* Restricted to surgeries from 2010-2016 to allow 24 months for outcome ascertainment.



Supplemental Figure S1. Reoperation at 24 months by surgery type and spine region.