



**Retrainee – Job Creation
Training Proposal for:
Intuitive Surgical, Inc.**

Agreement Number: ET17-0118

Panel Meeting of: June 24, 2016

ETP Regional Office: San Francisco Bay Area

Analyst: C. Hoover

PROJECT PROFILE

Contract Attributes:	Retrainee Job Creation Initiative Veterans Priority Rate	Industry Sector(s):	Manufacturing Healthcare Technology/Other Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Counties Served:	Santa Clara	Repeat Contractor:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Union(s):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Number of Employees in:	CA: 1,625	U.S.: 2,443	Worldwide: 3,197
<u>Turnover Rate:</u>	10%		
<u>Managers/Supervisors:</u> (% of total trainees)	11%		

FUNDING DETAIL

Program Costs	-	(Substantial Contribution)	(High Earner Reduction)	=	Total ETP Funding
\$429,200		\$33,324 (Jobs 1 & 3)	\$0		\$395,876

In-Kind Contribution:	100% of Total ETP Funding Required	\$1,035,540
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TRAINING PLAN TABLE

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Retrainee Priority Rate	Business Skills, Computer Skills, Cont. Imp., Mfg. Skills, PL-Mfg. Skills	300	8-200	0-28	*\$612	\$17.02**
				Weighted Avg: 40			
2	Job Creation Retrainee Priority Rate	Business Skills, Computer Skills, Cont. Imp., Mfg. Skills, PL-Mfg. Skills	100	8-200	0-28	\$2,000	\$14.19**
				Weighted Avg: 100			
3	Veterans Retrainee Priority Rate	Business Skills, Computer Skills, Cont. Imp., Mfg. Skills, PL-Mfg. Skills	7	8-200	0-28	*\$748	\$17.02**
				Weighted Avg: 40			
4	Veterans Job Creation Retrainee Priority Rate	Business Skills, Computer Skills, Cont. Imp., Mfg. Skills, PL-Mfg. Skills	8	8-200	0-28	\$880	\$14.19**
				Weighted Avg: 40			

*Reflects Substantial Contribution

**It will be made a condition of contract that the trainees in this Job Number will never be paid less than the State or local minimum wage rate as in effect at the end of retention (Final Payment) regardless of the wage expressed in this table. The highest minimum wage rate will prevail.

Minimum Wage by County: Job Numbers 1 & 3: \$17.02 per hour for Santa Clara County.
 Job Number 2 (Job Creation): \$14.19 per hour for Santa Clara County.

Health Benefits: Yes No This is employer share of cost for healthcare premiums – medical, dental, vision.

Used to meet the Post-Retention Wage?: Yes No Maybe

Up to \$2.99 per hour may be used to meet the Post-Retention Wage in Job Numbers 1 & 3 and up to \$1.19 per hour in Job Numbers 2 & 4.

Wage Range by Occupation		
Occupation Titles	Wage Range	Estimated # of Trainees
Job Number 1		
Information Technology Staff		20
Engineering/Quality/Research & Development Staff I		75
Engineering/Quality/Research & Development Staff II		16
Manufacturing/Logistics Staff I		25
Manufacturing/Logistics Staff II		10

Marketing/Sales Staff		12
Operations Support Staff I		40
Operations Support Staff II		21
Technician/Service Staff		48
Supervisors/Managers		33
Job Number 2 (Job Creation)		
Information Technology Staff		6
Engineering/Quality/Research & Development Staff		30
Manufacturing/Logistics Staff		13
Marketing/Sales Staff		4
Operations Support Staff		20
Technician/Service Staff		16
Supervisors/Managers		11
Job Number 3 (Veterans)		
Information Technology Staff		1
Engineering/Quality/Research & Development Staff		1
Manufacturing/Logistics Staff		1
Marketing/Sales Staff		1
Operations Support Staff		1
Technician/Service Staff		1
Supervisors/Managers		1
Job Number 4 (Job Creation/Veterans)		
Information Technology Staff		1
Engineering/Quality/Research & Development Staff		1
Manufacturing/Logistics Staff		2
Marketing/Sales Staff		1
Operations Support Staff		1
Technician/Service Staff		1
Supervisors/Managers		1

INTRODUCTION

Founded in 1995 and headquartered in Sunnyvale, Intuitive Surgical, Inc. (ISI) (www.intuitivesurgical.com), with its affiliate, Intuitive Surgical Operations, Inc. (ISOI) manufactures surgical robots used across cardiac, urology, gynecologic, colorectal, pediatric and general surgical disciplines. ISI is the parent company that focuses on sales/marketing, and its subsidiary, ISOI focuses on manufacturing. ETP-funded training will be delivered to both ISI and ISOI employees under this Agreement.

In 1999, the Company launched the *da Vinci*® Surgical System used for general laparoscopic surgery. The *da Vinci*® system enables surgeons to perform complex procedures such as heart valve and cancer surgery through 1-2 cm incisions. The *da Vinci*® Surgical System consists of a surgeon's console that is typically in the same room as the patient and a patient-side cart with four interactive robotic arms controlled from the console. Currently, hospitals worldwide use the *da Vinci*® system to perform minimally invasive surgery, which reduces incidence of complications, post-operative recovery time and length of hospital stay.

ISI has four generations of *da Vinci*® Surgical System: the Xi, Si, S and standard. The Company focuses on five surgical specialties: urologic, gynecologic, general, cardiothoracic, and head & neck. ISI is planning to expand the use of the *da Vinci*® system in thoracic and general surgery (colorectal surgery and hernia repair). The Company provides its surgery-robot products to hospitals throughout the United States and internationally.

This is ISI's third ETP Agreement in five years. In the prior ETP Agreement, which is still active, the Company delivered training on continuous improvements and introduction/features of new products. The training in the active Agreement primarily targeted Technician Staff; this training targets a new population. Some of the training courses listed in the proposed curriculum are repeated. However, coursework under the Active Agreement will not be duplicated.

Training will focus on clinical investigations, and the release of new product. ETP funding will allow ISI to develop the *da Vinci*® Sp (single port), a robot-assisted surgical system with 3D high-definition camera; and to refine *da Vinci*® Xi Surgical System. ISI will train 307 current employees (including seven Veterans) in manufacturing practices, product knowledge, and customer needs. In addition, ISI plans to hire and train approximately 108 new employees (including eight Veterans).

Retrainee - Job Creation

The Panel offers incentives to companies that commit to hiring new employees. Training for newly-hired employees will be reimbursed at a higher rate and trainees will be subject to a lower post-retention wage.

In this proposal, ISI has committed to hiring 108 new employees in Job Numbers 2 and 4. ISI represents that the date-of-hire for all these will be within the three-month period before contract approval or within the term-of-contract. The Company also represents that these trainees will be hired into "net new jobs" as a condition of contract. As a feature of this program, the Substantial Contribution requirement is waived for Job Numbers 2 and 4.

Since April 2014, ISI has increased its global headcount by 1,000 including nearly 500 net new employees in California in the last two years. The Company has plans for continued growth to meet increased demand for its products. Surgical procedures are increasing in volume by a factor of about 10% in the U.S and worldwide, according to the Company. As such, ISI plans to hire 100-150 new employees in California in 2016-2017, although a conservative number (108) is included in this proposal.

PROJECT DETAILS

ETP funding will enable the Company to provide extensive and critical skills to its workforce. Training goals include:

- Increase efficiency (Six Sigma, Process Improvement and Leadership Skills)
- Improve designing and developing skills (Computer-Aided Engineering/Design Tools)
- Launch and service product lines (Customer Service and Support Skills)

- Expand into new markets (Marketing, Sales and Innovation Skills)

The proposed training will allow ISI to meet these goals, in compliance with strict Food & Drug Administration requirements.

Training Plan

Even though ISI has facilities in Connecticut, Georgia, Mississippi, Virginia, Mexico, Switzerland, China, Korea and Japan, the training will be conducted at the Sunnyvale headquarters. Classroom/Laboratory (Class/Lab), Productive Lab (PL) and Computer-Based Training (CBT) will be provided in the following:

Business Skills (10%): Training will be offered to all occupations as it relates to specific job functions. Topics include Business Acumen, Communication/Team Building Skills, and Marketing/Sales Skills. Training will increase each worker's ability to perform job functions efficiently within ISI's dynamic and advanced manufacturing environment.

Computer Skills (5%): Training will be offered to all occupations based specifically on the systems the trainees utilize daily. Training topics include Agile Software Skills, Change Order System Skills, Computer-Aided Engineering and Design Tools, ISI Proprietary System Skills, and Intermediate/Advanced Microsoft Office Skills.

Manufacturing Skills (25%): Training will be offered to Engineering/Quality/Research and Development, Manufacturing/Logistics and Technician Staff. This targeted staff will have the requisite skills to manufacture products using engineering and design directives to produce products that meet the medical device industry's strict standards. Topics include Change Order Process Skills, Clinical Skills and New/Updated Manufacturing Processes/Systems/Products.

Continuous Improvement (30%): Training will be offered to all occupations. Training will improve efficiencies and productivity by implementing improved processes throughout the organization. As the Company continues to grow its business and add new products and technologies, it needs to provide its workforce with skills. Training includes Change Management, Innovation Skills, Process Improvement Skills, Six Sigma Skills and Statistical Process Control.

Productive Laboratory (30%):

The Panel recently adopted regulations to authorize reimbursement for training delivered in a PL setting. PL trainees may produce goods for profit as part of the training in the courses identified under the Curriculum. The instructor is a subject matter expert dedicated to training delivery during all hours of training.

ISI has identified some 125 staff for PL training, in the following occupations: Engineering/Quality/Research & Development, Manufacturing/Logistics and Technician. All PL will be in Manufacturing Skills (Technician Certification, New Product Training, Production and Equipment Operations, Manufacturing Processes, Process Capability Mapping, Manufacturing Processes Cross-Training, Machine Operations, Calibration, and Maintenance, FDA Manufacturing Procedures and Protocols, and Manufacturing Assembly Standards and Procedures).

All PL training is capped at 60 hours per trainee with a trainer-to-trainee ratio of 1:1 in accordance with Panel standards for this method of delivery. Due to the strict standards of the medical device industry and the Federal Drug Administration, ISI's need for PL to train 125 workers on building its new product is high.

Computer-Based Training

While in-house instructors will deliver the majority of training via class/lab and PL, ISI does intend to deliver some training topics in Business Skills and Continuous Improvement as Computer-Based Training (CBT). CBT will be provided for items that can be taken by employees at their own pace without instructors. Additionally, CBT is restricted to no more than 50% of a trainee's total training hours. The CBT method of training offers additional methods of delivering training at the convenience of the Company's training population.

Temporary to Permanent Hiring

ISI intends to train 15 workers in Job Number 2 under Panel guidelines for the Temporary-to-Permanent program. The Company has retained these employees on a temporary basis, with the intention of hiring them into full-time, permanent positions after training. According to ISI, the average time for "converting" temporary workers into full-time permanent employment is three months. It is expected that these workers will receive employer-paid share-of-cost for healthcare premiums while on temporary status, and upon hire into full-time permanent employment.

Under Panel guidelines for the Temporary to Permanent program, these trainees must be eligible to participate in ETP-funded training pursuant to Unemployment Insurance Code Section 10201(c). Moreover, they cannot be enrolled as trainees until after they have been hired by ISI into full-time, permanent employment. Until they are so hired, retention and post-retention wage requirements cannot be satisfied and the Company will not receive progress payments.

Veterans Program

The Panel has established a higher reimbursement rate and other incentives for training California veterans. ISI appreciates qualities and skills that veterans gain from their military service. In this proposal, the training plan reflects 15 Veteran trainees that will receive ETP funded training. Seven Veteran Retraitees are in Job Number 3, and eight Veteran Job Creation Retraitees are in Job Number 4.

Individuals with Disabilities

The Individuals with Disabilities (IWD) program, recently adopted by the Panel, is designed to encourage California employers in their effort to "recruit, hire, train and retrain" workers with disabilities. ETP funding will be available to train these workers, along with other staff who support or have job responsibilities for these trainees.

In this proposal, IWD (Business Skills) training will be delivered in courses as follows: Accessibility, Skills Development for People with Disabilities, and Disability Culture: Sensitivity, Awareness and Hiring Practices to incumbent workers and new staff (Veterans) hired during the Agreement. ISI estimates five workers will receive this training.

Substantial Contribution

ISI is a repeat contractor with payment earned in excess of \$250,000 at the Sunnyvale facility within the past five years. (See the Active Project Table.) Accordingly, reimbursement for trainees at the Sunnyvale facility in Job Number 1 (Retraitee) and Job Number 3 (Veteran/Retraitee) will be reduced by 15% to reflect the Company's \$33,324 Substantial Contribution to the cost of training.

Commitment to Training

ISI represents that ETP funds will not displace the existing financial commitment to training. The Company's 2016 training budget in California is approximately \$1 million. ISI currently provides new hire orientation, sexual harassment prevention, introductory computer skills, expense report processing, insider trading, business ethics and company code of conduct training. ISI delivers training in a classroom and lab setting, on-the-job training (OJT), and self-paced CBT.

Certain training topics such as sexual harassment prevention and code of conduct are mandatory for all employees. Other training may be identified as mandatory by ISI, and elective training is encouraged to be completed by employees based on each employee's need by job function. In addition, mandatory training is provided company-wide, and some training may be department or function specific. Safety training is provided in accordance with all pertinent requirements under state and federal law.

➤ Training Infrastructure

ISI's Global Talent Development Programs Manager will manage the project internally. The Company also has approximately 30 internal trainers to provide training and support for this project. To optimize the administration of this ETP project, the Company hired a third-party administrator - Training Funding Partners (TFP). TFP will be responsible for ETP administrative duties.

Record Keeping

ISI will be using an established LMS for record keeping, which is currently in place as it has been used in previous ETP Agreements. ETP staff have reviewed and approved the LMS.

Impact/Outcome

With ETP funding, ISI employees will receive training Continuous Improvement (e.g. – Project Management Skills and Six Sigma Skills) to earn certifications in Project Management Institute and Six Sigma (Black & Green Belt). In addition, the Company has multiple internal certifications.

For example, when a new product is implemented or a change is made to a product, ISI requires a new certification for employees affected by these changes before they are able to perform their job in the manufacturing environment.

RECOMMENDATION

Staff recommends approval of this proposal.

ACTIVE PROJECTS

The following table summarizes performance by ISI under an active ETP Agreement:

Agreement No.	Approved Amount	Term	No. Trainees (Estimated)	No. Completed Training	No. Retained
ET14-0335	\$367,734	4/28/14-4/27/16	173	189	189

Based on ETP Online Systems, 19,681 reimbursable hours have been tracked, sufficient to support earnings of \$367,734 (99% of approved amount).

PRIOR PROJECTS

The following table summarizes performance by ISI under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned \$ %
ET13-0277	Sunnyvale	1/28/13- 1/27/15	\$240,496	\$240,496 (100%)

DEVELOPMENT SERVICES

Training Funding Partners (TFP) in Fountain Valley assisted with development for a flat fee of \$5,000.

ADMINISTRATIVE SERVICES

TFP will also perform administrative for 12% of payment earned.

TRAINING VENDORS

To Be Determined

Exhibit B: Menu Curriculum**Class/Lab Hours**

8 – 200

Trainees may receive any of the following:

MANUFACTURING SKILLS

- Change Order Process Skills
- Clinical Skills
- Failure Mode Effects Analysis
- Geometric Dimensioning and Tolerancing
- Good Documentation Practices/Good Manufacturing Practices
- New/Updated Manufacturing Processes/Systems/Products
- Production/Equipment Operations and Maintenance
- Root Cause Analysis/Corrective Action
- Technician Product Certification

CONTINUOUS IMPROVEMENT

- Change Management Skills
- Coaching/Feedback
- Goal Setting
- Innovation Skills
- Leadership Skills
- Process Improvement Skills
- Project Management Skills
- Quality Assurance/Quality Control
- Six Sigma Skills
- Statistical Process Control Skills

COMPUTER SKILLS

- Agile Software Skills
- Change Order System Skills
- Computer-Aided Engineering and Design Tools
- Intermediate/Advanced Microsoft Office Skills
- ISI Proprietary Systems Skills

BUSINESS SKILLS

- Business Acumen
- Communication/Team Building Skills
- Customer Service/Support Skills
- Individuals with Disabilities
 - Accessibility
 - Disability Culture: Sensitivity, Awareness, and Hiring Practices
 - Skills Development for People with Disabilities
- Finance/Accounting Skills
- Marketing/Sales Skills
- Meeting Management

Safety Training cannot exceed 10% of total training hours per-trainee

PL Hours

0-60

MANUFACTURING SKILLS (Ratio 1:1)

- Technician Certification
- New Product Training
- Production and Equipment Operations
- Manufacturing Processes
- Process Capability Mapping
- Manufacturing Processes Cross-Training
- Machine Operations, Calibration and Maintenance
- FDA Manufacturing Procedures and Protocols
- Manufacturing Assembly Standards and Procedures

CBT Hours

0-28

BUSINESS SKILLS

- Conflict Management
 - Adapting Your Conflict Style (0.5 hours)
 - Preventing Unhealthy Workplace Conflict (0.5 hours)
 - Working Out and Through Conflict (0.5 hours)
- Communication Skills
 - Being a Receptive Communication Partner (0.5 hours)
 - Building Trust (0.5 hours)
 - Communication Challenges: Navigating Choppy Waters (0.5 hours)
 - Communication Methods that Make Sense – and Make Your Point (0.5 hours)
 - Getting Your Arms Around Arguments (0.5 hours)
 - Interpersonal Communication that Builds Trust (0.5 hours)
 - Issue-focused Negotiation: Are You Ready? (0.5 hours)
 - You and Your Negotiating Counterpart (0.5 hours)
 - Reaching a Negotiated Agreement (0.5 hours)
 - Recovering from Trust Slip-Ups and Erosions (0.5 hours)
- Cardiac Anatomy (0.33 hours)
- Electrosurgery Basics (0.33 hours)
- Gynecological Anatomy (0.33 hours)
- Lower General Surgery (Colorectal) Anatomy (0.33 hours)
- Medical and Surgical Terminology (0.33 hours)
- Si System - Assessment (0.33 hours)
- Si System - Docking (0.33 hours)
- Si System - Draping (0.33 hours)
- Si System - OR Configuration & Power (0.33 hours)
- Si System - Safety Features (0.33 hours)
- Si System - Surgeon Console (0.33 hours)
- Si System - Vision System (0.33 hours)
- Si System Overview (0.33 hours)
- Thoracic Anatomy/Lung Cancer (0.33 hours)
- Upper General Surgery (Foregut) Anatomy (0.33 hours)
- Urogenital Anatomy (0.33 hours)
- Xi System - Assessment (0.33 hours)
- Xi System - Docking (0.33 hours)
- Xi System - Intraoperative Patient Cart Use (0.33 hours)
- Xi System - OR Set-Up & Connections (0.33 hours)

- Xi System - Patient Cart & Draping (0.33 hours)
- Xi System - Surgeon Console (0.33 hours)
- Xi System - Vision System (0.33 hours)
- Xi System Overview (0.33 hours)

CONTINUOUS IMPROVEMENT

- Leadership Skills
 - Achieve Your Objectives through Effective Delegation (0.5 hours)
 - Applying Emotional Intelligence at Work (0.5 hours)
 - Beginning your Coaching Engagement (0.5 hours)
 - Coaching Techniques that Drive Change (0.5 hours)
 - Coaching to Drive Performance (0.5 hours)
 - Getting Agreement (0.5 hours)
 - Successful Delegation: Supervise and Encourage (0.5 hours)
 - The Delegation Process (0.5 hours)
 - Use Delegation to Develop Your Team (0.5 hours)
- Critical Thinking
 - Coming to Terms with Assumptions (0.5 hours)
- Project Management
 - Complete Your Project On-Time and On-Budget (0.5 hours)
 - Get Your Project off the Ground (0.5 hours)
 - Lead Your Project like a Pro (0.5 hours)
 - Plan a Bulletproof Project (0.5 hours)
- Problem Solving
 - Drawing Conclusions with Confidence (0.5 hours)
 - Framing the Problem (0.5 hours)
 - Generating and Evaluating Alternatives (0.5 hours)
- Process Improvement
 - Implementing and Sustaining Change (0.5 hours)
 - Implementing and Sustaining Process Improvement (0.5 hours)
 - Mapping and Measuring to Support Sustainable Process Improvement (.5 hours)
 - Smart Selection, Planned Implementation (0.5 hours)
 - Stakeholder-driven Process Improvement (0.5 hours)
 - Planning for Change (0.5 hours)
 - The Keys to Sustainable Change (0.5 hours)
- Time Management: Quit Making Excuses and Make Time Instead (0.5 hours)
- Time Management: Ready, Set... FOCUS! (0.5 hours)
- Time Management: Too Much to Do and Too Little Time (0.5 hours)

Note: Reimbursement for retraining is capped at 200 total training hours per trainee, regardless of the method of delivery. CBT is capped at 50% of total training hours, per trainee. PL is capped at 60 hours per-trainee.