

**MIS 3534 Fall 2016 –  
Strategic Management of  
Information Technology  
*Week 3 – IT and Competitive  
Strategies (II)***

**Min-Seok Pang**

**Management Information Systems  
Fox School of Business, Temple University  
minspang@temple.edu  
*Sep. 19<sup>th</sup>, 2016***

## We will discuss ...

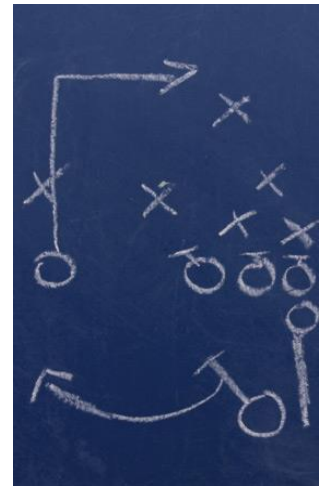
- Why merger and acquisitions (M&A)
- Why M&A in the healthcare industry
- How Trinity's M&A strategy drives its IT management



[https://en.wikipedia.org/wiki/Trinity\\_Health\\_\(Livonia,\\_Michigan\)](https://en.wikipedia.org/wiki/Trinity_Health_(Livonia,_Michigan))

## Strategy 101 (1/2)

- Competitive strategy: how a business firm competes in a particular business or industry (Institute for Strategy and Competitiveness, HBS)
  - how a company can gain a *competitive advantage* through a *distinctive* way of competing
- Examples?
  - introducing new products
  - lowering prices
  - entering new markets
  - providing superior services
  - M&A, diversification, vertical integration

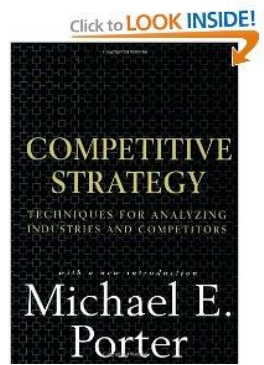


## Strategy 101 (2/2)

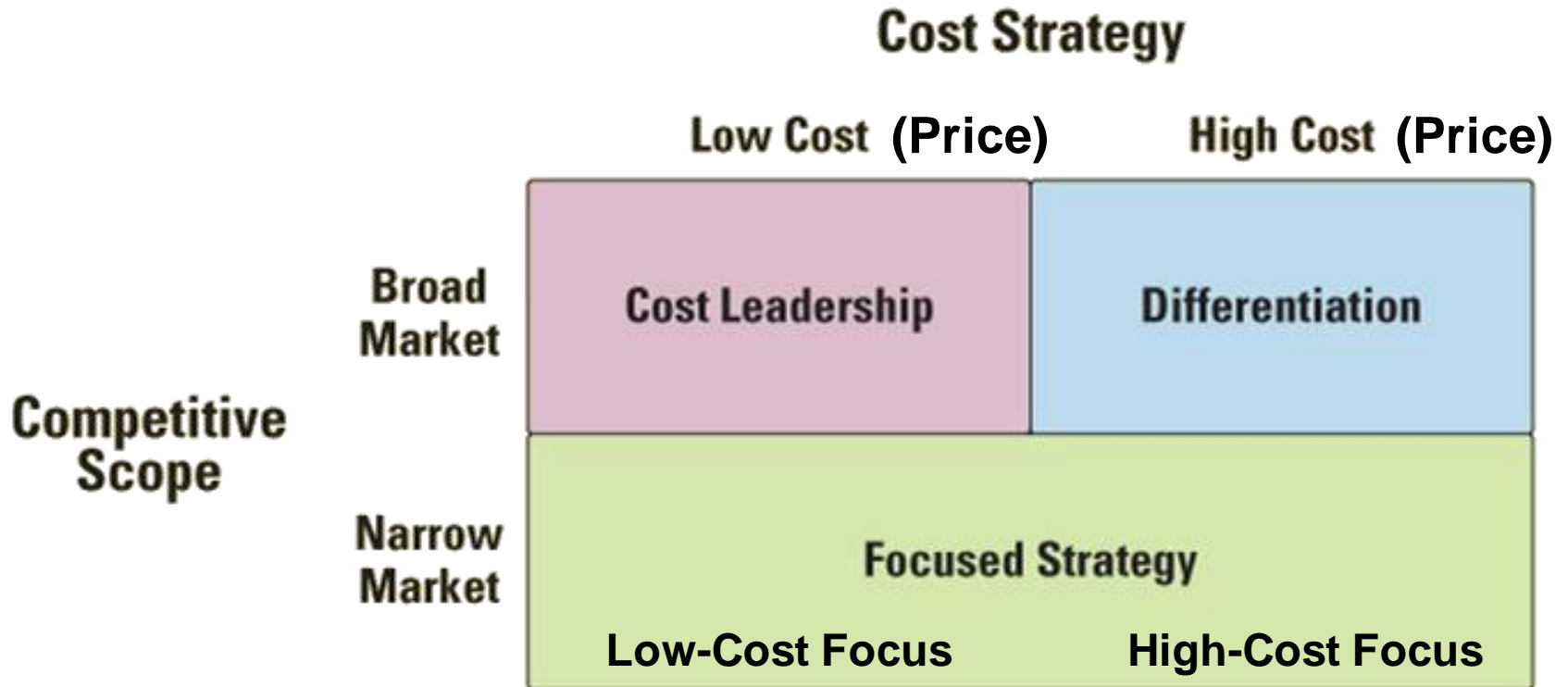
- Competitive advantage: strategic advantage a firm has over its rivals within its competitive industry
  - A product or service that customers place greater value than on similar offerings from competitors
  - Some competitive advantages do not last long (i.e. temporal competitive advantages),
    - since competitors keep copying, imitating, or replicating.
- *Sustainable* competitive advantages is a basis for *long-term* profitability for the firm
  - achieving financial performance that *consistently* outperforms industry peers

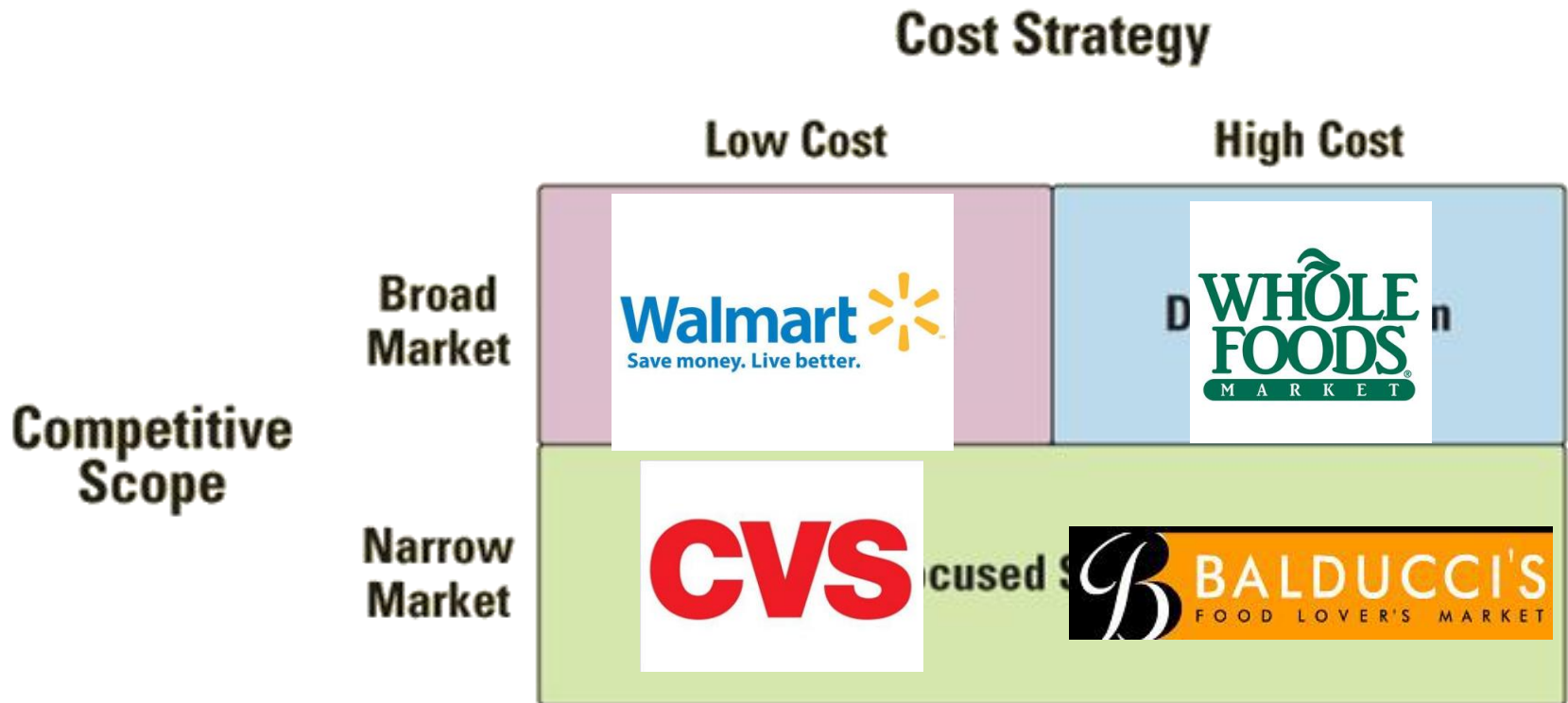
## Steps in Strategy Formulation

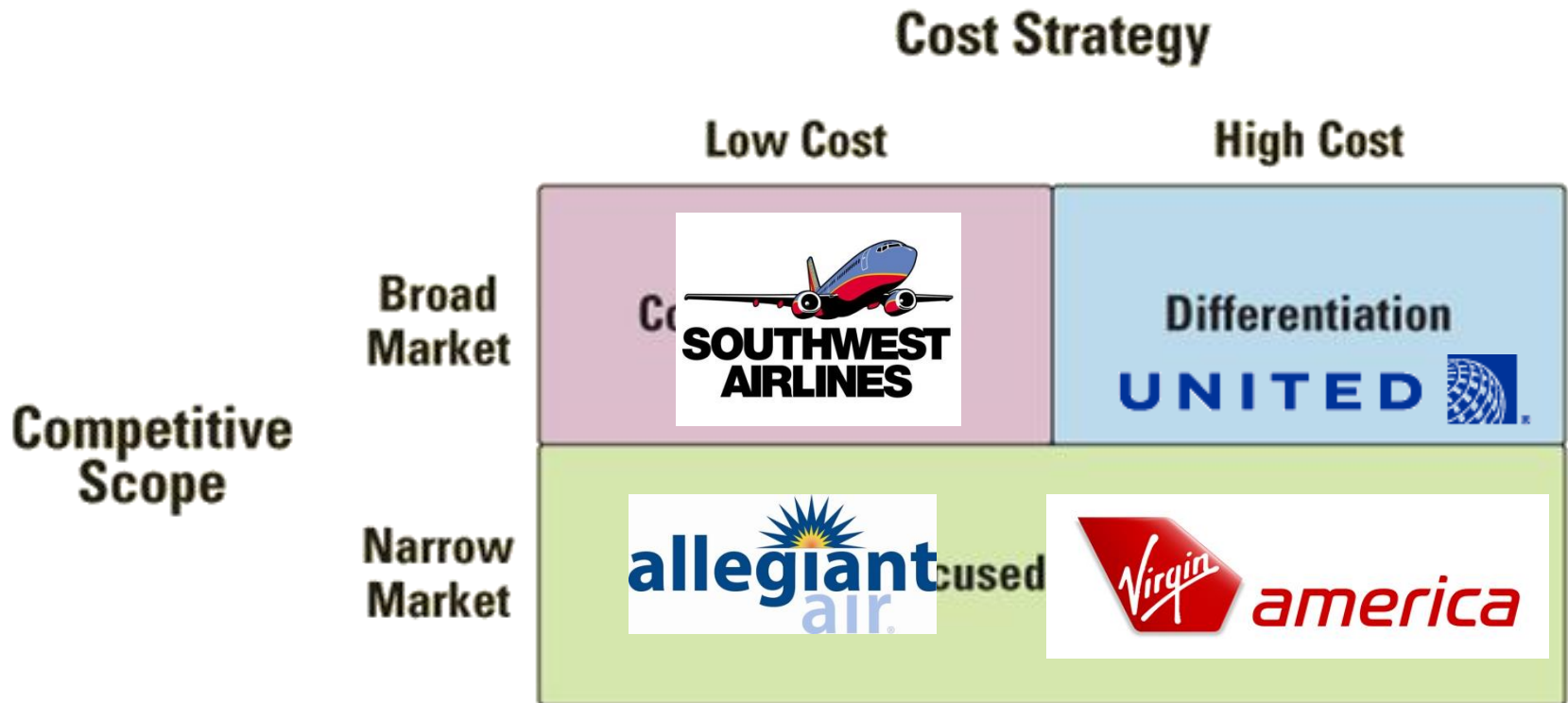
- Where to play: look out industries or markets and figure out which one is profitable
  - The five forces model for competitive analysis
- How to play: choose specific business strategies
  - The three types of generic strategies
- Play with what: know what is needed to succeed in the competitive industry (tools, skills, muscles, ...)
  - Core competencies



# Generic Strategies





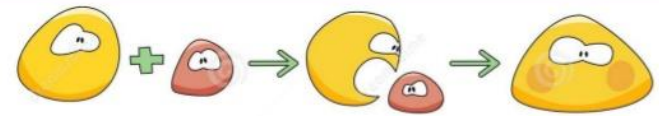




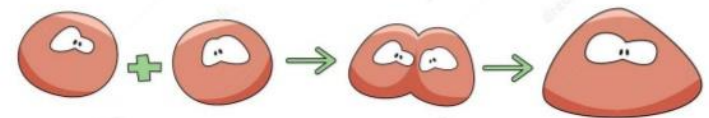
## Why merger and acquisitions (M&A)?

- Why does a company acquire and merge another?
- Find out with your classmates!

### WHAT IS MERGER & ACQUISITION ?



Acquisition



Merger

## Why M&A?

- To enter a new market for growth
- To reduce costs (economies of scale, synergies)
- To diversify (economies of scope)
- To acquire new assets (e.g. factories, brands)
- To achieve vertical integration
- To kill competition
- To get bigger!

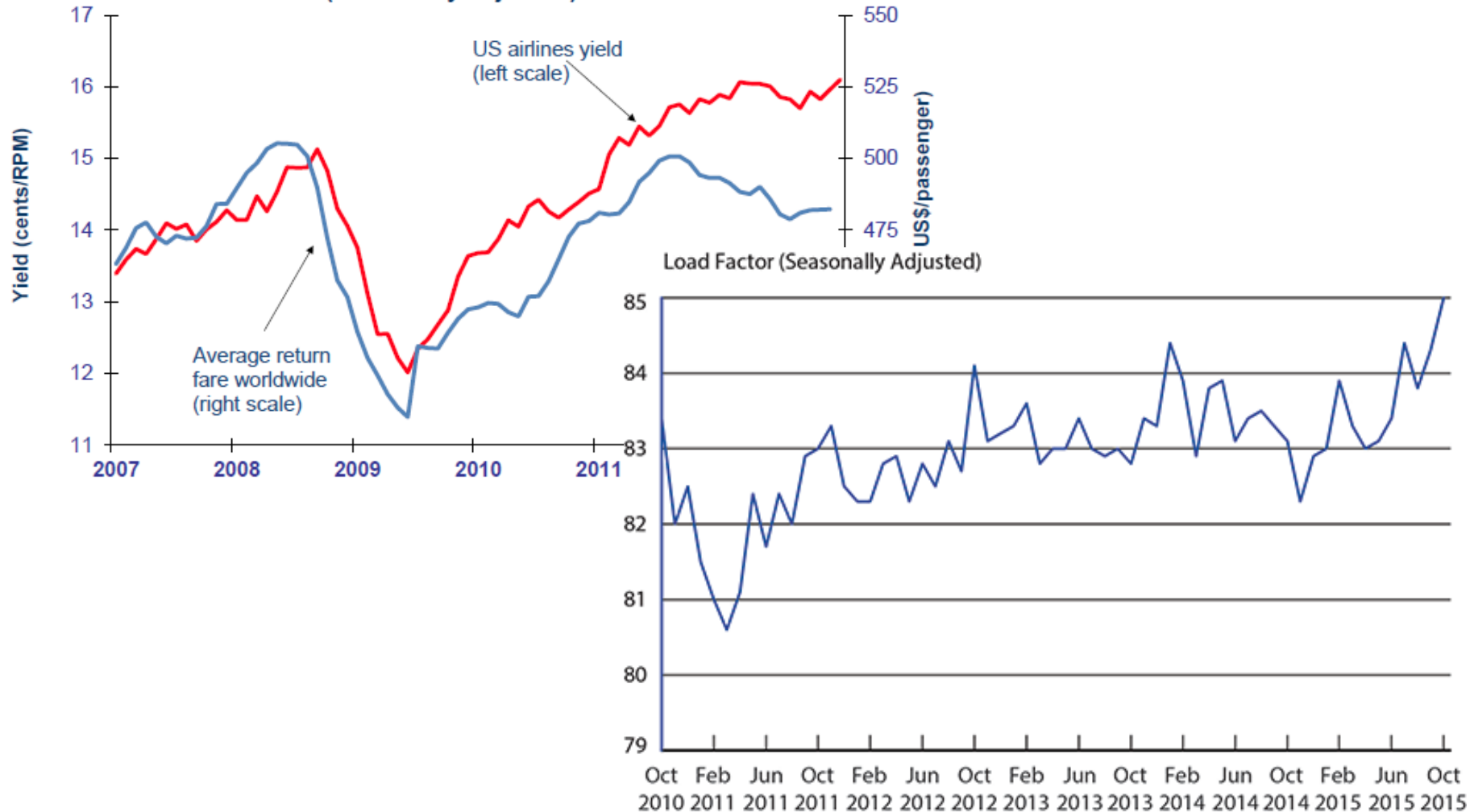


<http://blog.vistage.com/business-strategy-and-management/mergers-and-acquisitions-understanding-the-essentials-of-strategy-and-execution-in-the-ma-ecosystem-part-1-of-4/>

## CONSOLIDATION STRENGTHENED THE U.S. AIRLINE INDUSTRY



[www.usfunds.com](http://www.usfunds.com)

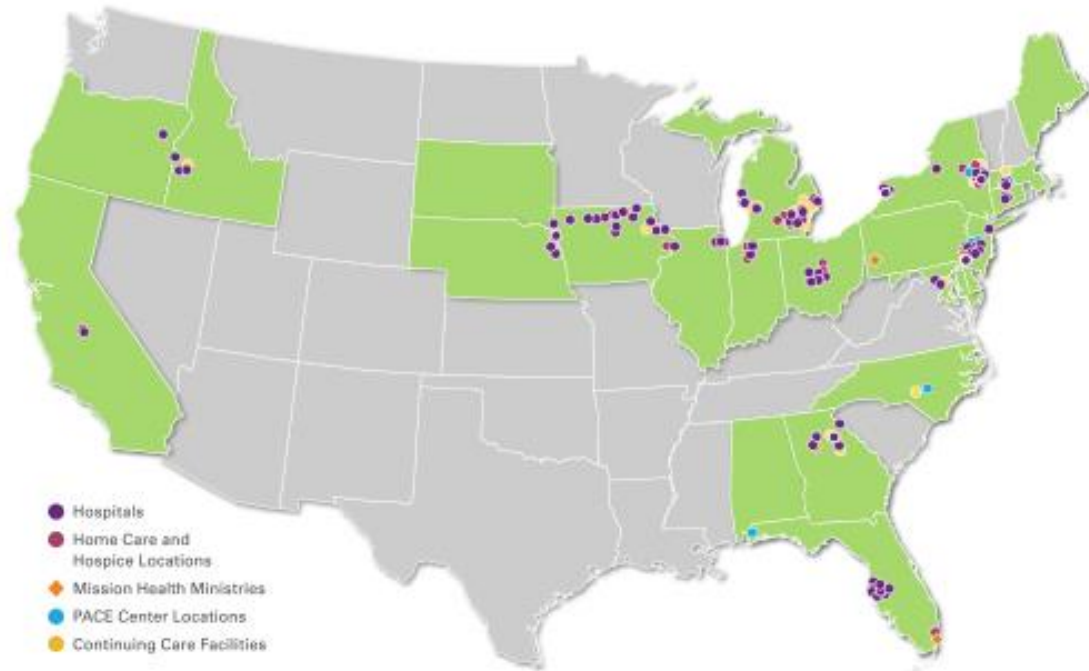
**Average return fare worldwide and US airlines yields  
 (seasonally adjusted)**


<http://www.travelindustrywire.com/article87388.html>

<http://centreforaviation.com/analysis/us-airlines-finally-find-business-stability-but-government-intervention-threatens-to-thwart-profits-103400>

# Why M&A in Trinity Health?

## Hospitals & Facilities



# M&A in Penn Medicine

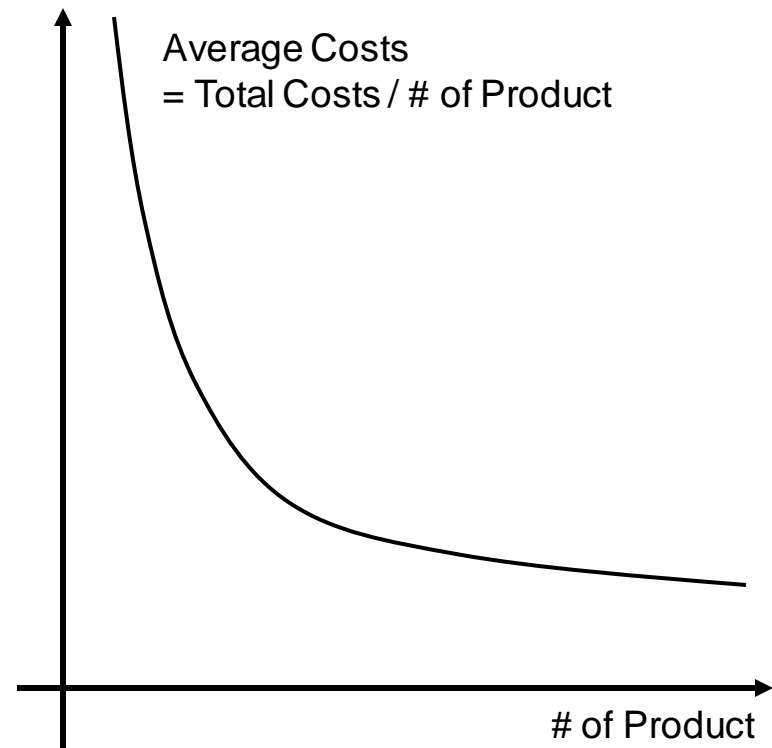
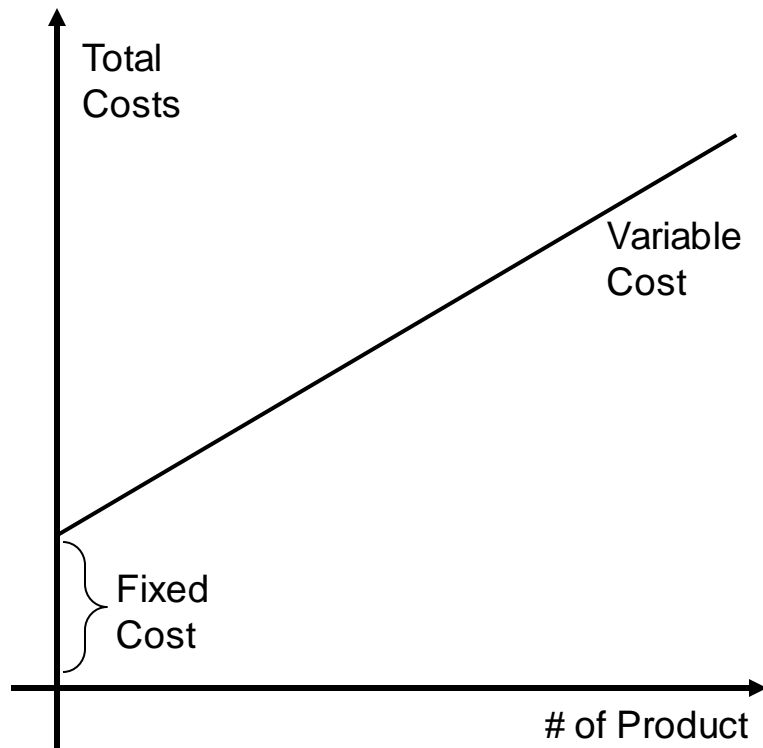




## Why M&A in Trinity Health?

- To enter a new market for growth
- To reduce costs (economies of scale, synergies)
- To diversify (economies of scope)
- To acquire new assets (e.g. factories, brands)
- To achieve vertical integration
- To kill competition
- To get bigger!

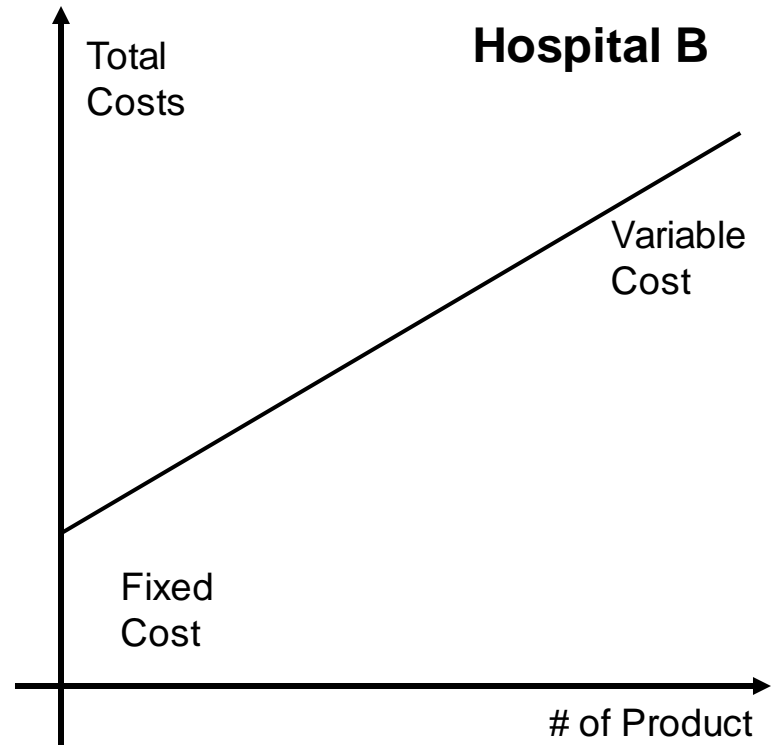
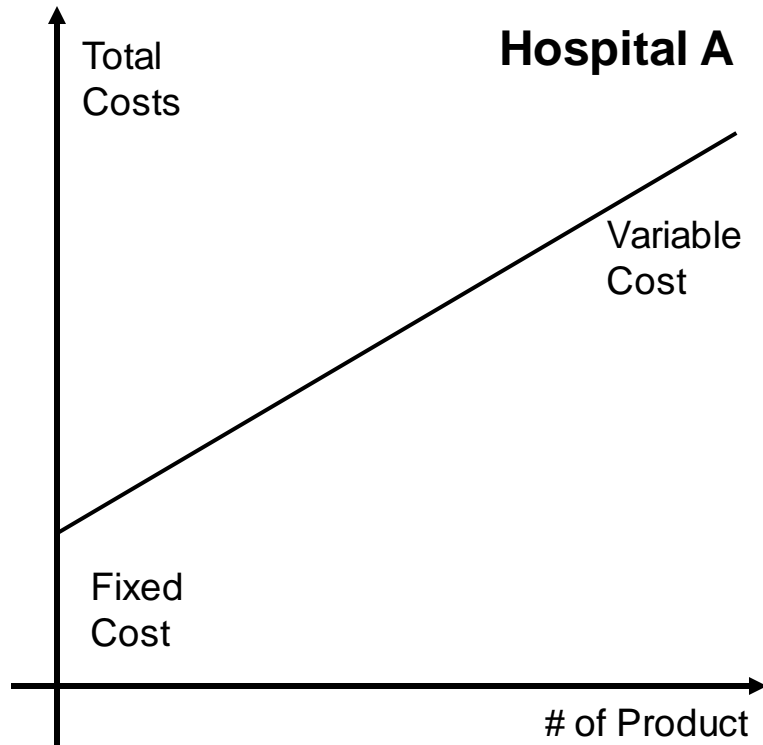
## Economies of Scale



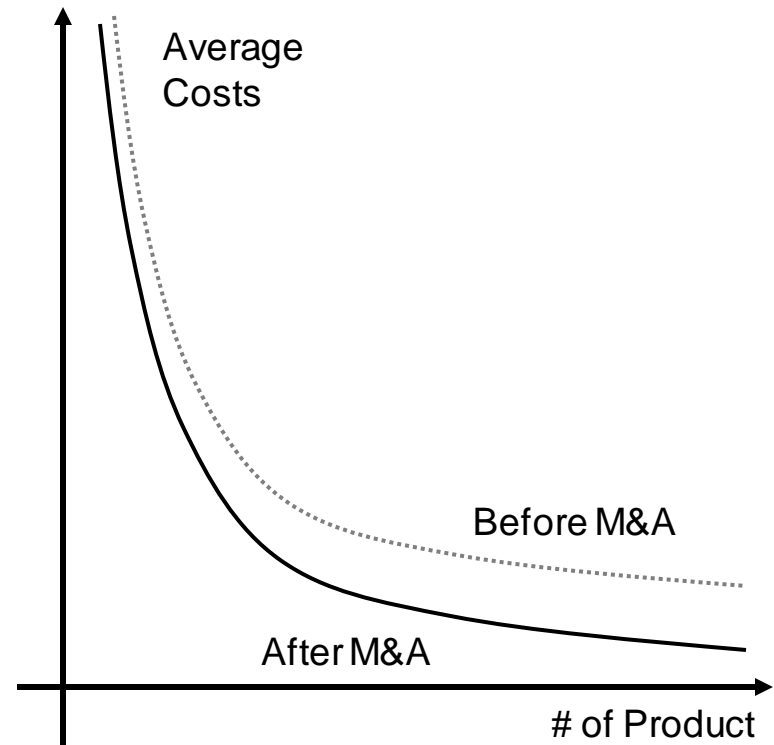
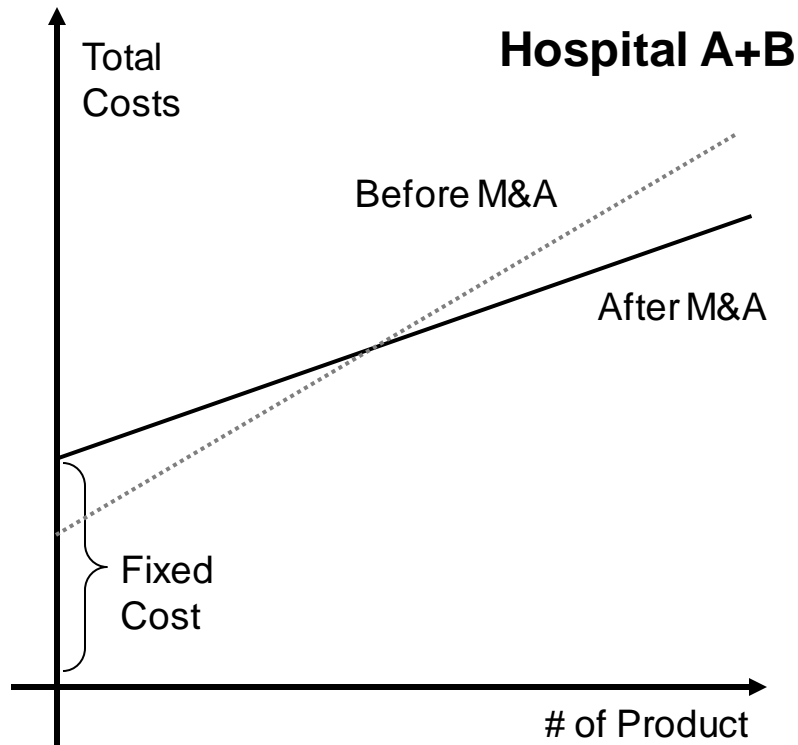
- What are the fixed costs in hospital?
- What are the variable costs?



# Economies of Scale



# Economies of Scale in M&A (1/2)

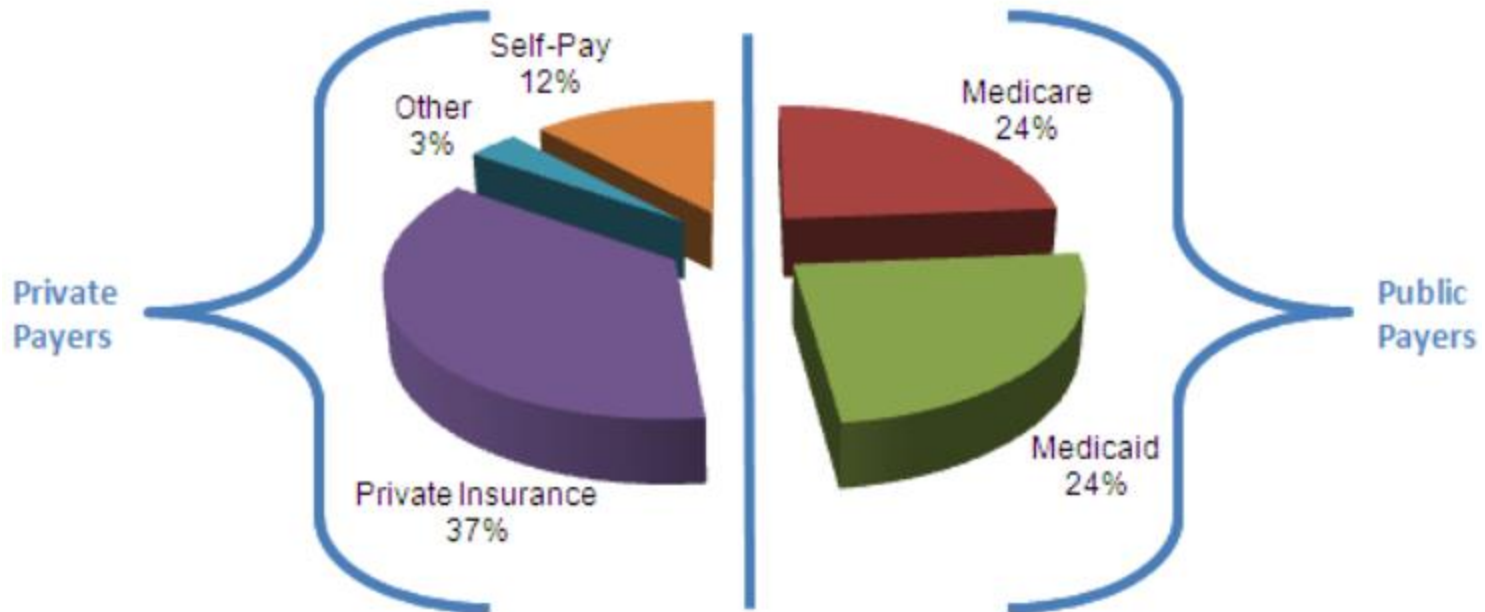


## Economies of Scale in M&A (1/2)


- Fixed Costs in hospitals
  - Capitals – building, medical equipment, license
  - Supporting functions – HR, finance/accounting, IT, procurement
- By M&A, the hospitals can save the fixed costs by consolidating capitals and supporting functions, reducing the average costs.

# How Pays Hospitals? (They are not customers!)

### Florida Hospital's Payer Mix by Patient Volume (2012)



# Have you tried to understand your bill?

Explanation of benefits		
for a claim received for ALEX W GOLDSTEIN		
Summary of a claim for services on March 7, 2011		
Amount Billed	\$400.00	This was the amount that was billed for your visit on 03/07/2011.
Discount	\$151.39	<b>You saved \$151.39.</b> CIGNA negotiates discounts with health care professionals and facilities to help you save money.
What CIGNA plan paid	\$208.61	CIGNA will pay \$208.61 to ROBERT M LERCH MD on 03/24/2011.
What I owe	\$40.00	This is the amount you owe after your discount, what your CIGNA plan paid, and what your accounts paid. People usually owe because they may have a deductible, have to pay a percentage of the covered amount, or for care not covered by their plan. Any amount you paid since care was received may reduce the amount you owe
You saved	 <b>90%</b>	You saved \$360.00 (or 90%) off the total amount billed. This is a total of your discount and what your CIGNA plan paid.  To maximize your savings, visit <a href="http://www.myCIGNA.com">www.myCIGNA.com</a> or call customer service to estimate treatment costs, or to compare cost and quality of in-network health care professionals and facilities.

# Why is “Getting Bigger” important?



<https://twitter.com/trinityhealthmi>  
<http://insurance.24hourly.com/dallas-tx/>

# Fee-for-Service vs.

## Service Charges Detail

Resident	Assessment Date	Points	Res Service Charge	Service Total
█ Billie J.	7/30/2009	27.75	\$ 40.00	\$1,110.00
Service		Service Points	Service Charge	
Staff Orders Routine Medications		0.25	\$10.00	
Staff Dispenses Medication		6.00	\$240.00	
Coordination of Communication between Physician and other Health Professionals		0.25	\$10.00	
Physician Orders		0.25	\$10.00	
Assignment of medications		0.75	\$30.00	
Bathing Assistance: Stand by		3.50	\$140.00	
Dressing: Choose and lay out clothing		1.25	\$50.00	
Grooming: Assist with make up		0.75	\$30.00	
Mobility assist via wheelchair to/from dining room		6.75	\$270.00	
Reminders for upcoming activities		0.25	\$10.00	
Social: 1 on 1		3.50	\$140.00	
Bed making		0.75	\$30.00	
Transportation: requires assistance arranging non-scheduled transportation		0.50	\$20.00	
Pet Care - Feed		2.00	\$80.00	
Financial management services: assist with paying bills, phone calls to providers, etc		1.00	\$40.00	

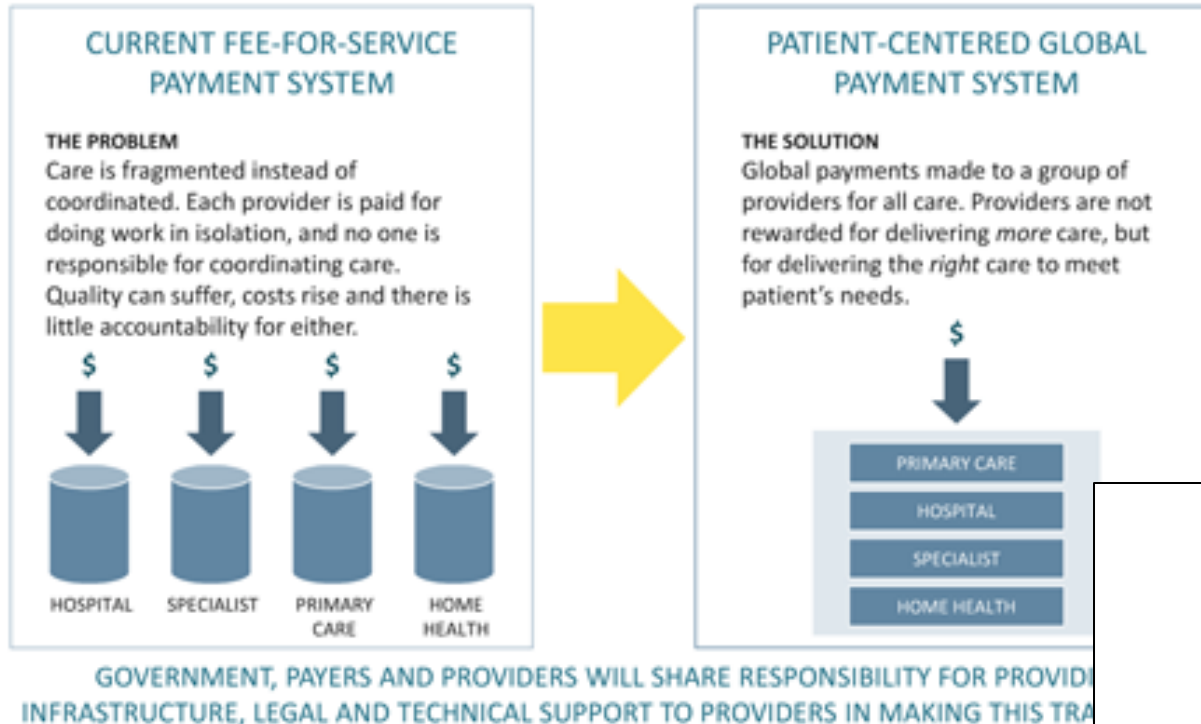
# Fee-for-Value

**\$15,000**



<https://www.openplacement.com/community/blog/top-8-things-to-consider-when-discharging-to-senior-care/>  
<http://www.itmagazine.com/article/fee-service-increases-resident-satisfaction-profit>

## Special Commission on the Health Care Payment System's Recommendation



<http://yes.goinvo.com/articles/health-reform-2-0-envisioning-a-patient-centered-system>  
<http://bhmpc.com/2014/04/bundled-payments-rewarding-quality-value/>



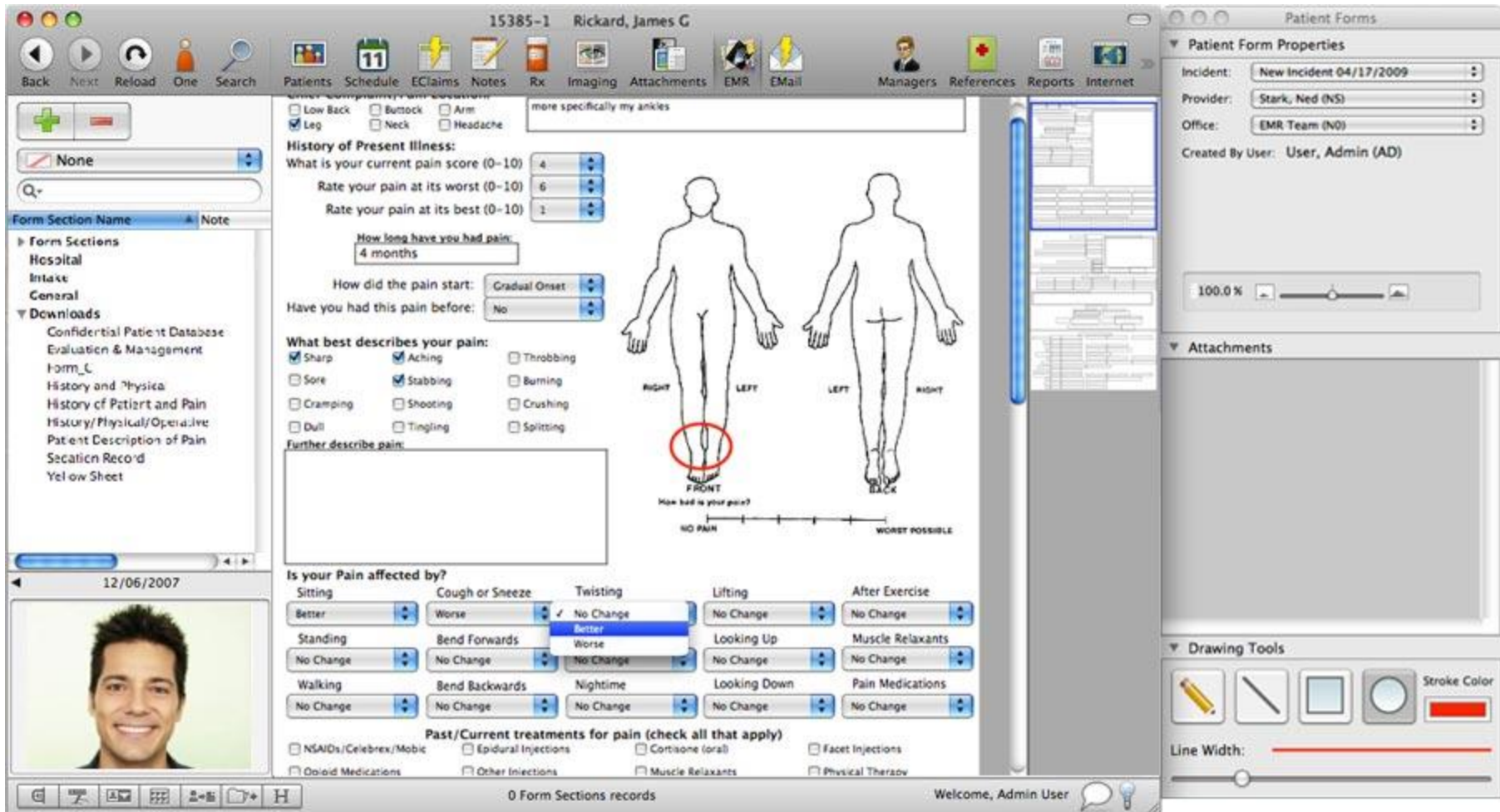
## Why M&A in Trinity Health?

- To get bigger
  - to decrease the bargaining power of buyers (vis-à-vis insurance companies)
  - so that the insurance companies pay more for its services
- To reduce costs (economies of scale, synergies)
- To diversify (economies of scope)
  - Under the fee-for-service model, hospitals do not have much incentive to reduce costs.
  - The transition from fee-for-service to fee-for-value requires to reduce costs and improve the quality of care.

## IT Management at Trinity

- What is a Unified Service Organizations (USO) (p. 3)?
  - It aims to reduce the fixed-costs in supporting functions (e.g. HR, finance, supply chains, and IT).
- Why does Trinity implement a “Common Digital Platform”?
- Why is IT important in hospitals?
  - IT in hospitals is mission-critical. Well-functioning IT is essential for quality care for patients.

# Electronic Medical Records



15385-1 Rickard, James G

Back Next Reload One Search Patients Schedule EClaims Notes Rx Imaging Attachments EMR Email Managers References Reports Internet

Low Back Buttock Arm  
 Leg  Neck  Headache

more specifically my ankles

**History of Present Illness:**  
 What is your current pain score (0-10) 4  
 Rate your pain at its worst (0-10) 6  
 Rate your pain at its best (0-10) 1  
 How long have you had pain: 4 months  
 How did the pain start: Gradual Onset  
 Have you had this pain before: No

**What best describes your pain:**  
 Sharp  Aching  Throbbing  
 Sore  Stabbing  Burning  
 Cramping  Shooting  Crushing  
 Dull  Tingling  Splitting

Further describe pain:

RIGHT LEFT LEFT RIGHT  
 FRONT BACK  
 How bad is your pain?  
 NO PAIN WORST POSSIBLE

**Is your Pain affected by?**  
 Sitting: Better  
 Cough or Sneeze: Worse  
 Twisting: No Change  
 Lifting: No Change  
 After Exercise: No Change  
 Standing: No Change  
 Bend Forwards: Worse  
 Looking Up: No Change  
 Muscle Relaxants: No Change  
 Walking: No Change  
 Bend Backwards: No Change  
 Nighttime: No Change  
 Looking Down: No Change  
 Pain Medications: No Change

**Past/Current treatments for pain (check all that apply)**  
 NSAIDs/Celebrex/Mobic  Epidural Injections  Cortisone (oral)  Facet Injections  
 Opioid Medications  Other Injections  Muscle Relaxants  Physical Therapy

12/06/2007

0 Form Sections records Welcome, Admin User


**Patient Forms**  
 Patient Form Properties  
 Incident: New Incident 04/17/2009  
 Provider: Stark, Ned (NS)  
 Office: EMR Team (NO)  
 Created By User: User, Admin (AD)

100.0 %

**Attachments**

**Drawing Tools**  
 Stroke Color  
 Line Width:

# Electronic Prescribing Software

	<a href="#">Select Patient</a> <a href="#">Manage Medications</a> <a href="#">Manage Allergies</a>	<a href="#">Prescription Report</a> <a href="#">Additional Options</a> <a href="#">Members Area</a>	<a href="#">Help / Contact Us</a> <a href="#">Log Out</a> <a href="#">Refresh / Clear</a>
	<b>Practice Information</b> Practice: <a href="#">Doctors Access Cert Practice</a> User: <a href="#">Doctors Access Doctor</a> <a href="#">[Schedule]</a> <a href="#">[Messages]</a>		
<b>Patient Demographic Information</b> Patient: <a href="#">DAVID R MARLER (#7182)</a> <a href="#">[Prescribe]</a> <a href="#">[Change Demographics]</a> DOB: <b>05/17/1951</b> Gender: Male Phone: (615) 400-6842 (home) LOV: No last office visit <a href="#">[Visit Today]</a> Pharmacy: <a href="#">CVS/pharmacy #7626 - 4709 NOLENSVILLE RD, NASHVILLE, TN</a> <a href="#">[View]</a> <a href="#">[Change]</a> Formulary: <a href="#">Not entered</a> <a href="#">[Add]</a> Eligibility status is currently being obtained. Your practice group has <a href="#">3 renewal requests</a> waiting.			
<b>Prescribe a Medication</b> Select Medication for Prescription Name: <input type="text"/> <a href="#">Find</a> <a href="#">Category Search</a> Favorites: <a href="#">-Choose a Favorite-</a> <a href="#">Use</a> <a href="#">View/Edit</a>			
<b>Medications</b> <a href="#">[Manage Medications]</a> View: <a href="#">[Detail]</a> <a href="#">[Mini]</a> <a href="#">[PBM/Pharmacy History]</a> Actions: <a href="#">[Renew Selected]</a> <a href="#">[Select All]</a> <a href="#">[Select None]</a> <a href="#">[Check Interactions for Selected]</a> <input checked="" type="checkbox"/> <b>Inderal LA (propranolol)</b> Capsule, Sustained Action 24 hr 60 mg : 1 capsule by mouth three times a day as directed Disp. 30 Rfl #1 (last: 10/07/2009) by DoDo Actions: <a href="#">[Renew]</a> <a href="#">[Prescribe]</a> <a href="#">[Stop]</a> <input checked="" type="checkbox"/> <b>Levatol (penbutolol)</b> Tablet 20 mg : 1 tablet by mouth once a day as needed Disp. 30 NR (last: 08/25/2009) by DoDo Actions: <a href="#">[Renew]</a> <a href="#">[Prescribe]</a> <a href="#">[Stop]</a>			
<b>Allergies/Adverse Reactions</b> <a href="#">[Manage Allergies]</a> No known drug allergies (NKDA).	<b>Problems</b> <a href="#">[Manage Problems]</a> None.		
<b>Pending Prescriptions for this Patient</b> <a href="#">[Show All Prescriptions]</a> None.  Note: In the case of a pharmacy-related fax machine failure, we will contact your practice and inform you that it is necessary to call in the prescription to the pharmacy directly. If your office is closed or it is after business hours, we will notify your answering service.			

## Common Digital Platform (1/2)

- “Genesis also provided a common software package across the enterprise for each of five key functions” (p. 4)
  - electronic health records
  - computerized physician order entry
  - adverse drug event alert
  - revenue management
  - supply chain management
- Why is this necessary?

# Before the Genesis Strategy

	Eastern Division										Western Division						
Operating Units	Silver Spring, MD	Columbus, OH	Fort Huron, MI	Clemens, MI	Fontiac, MI	Livonia, MI	Ann Arbor, MI	Battle Creek, MI	Grand Rapids, MI	Muskegon, MI	South Bend, IN	Clinton, IA	Dubuque, IA	Mason City, IA	Sioux City, IA	Boise, ID	Fresno, CA
<b>Patient Administration</b>																	
Registration																	
Patient Accounting	HBOC STAR		SMS Med Series4	HBOC Plus 2000		HBOC Series	HBOC Health-Quest		SMS Med Series4		HBOC STAR		SMS Med Series4				HBOC STAR
Medical Records					HBOC Health-Quest												
DRG Grouping		3M	3M	Quadramed							3M					Quadramed	3M
APC/APG Grouping					HSS		HSS										
<b>Enterprise Resource Planning (ERP)</b>																	
General Ledger	People Soft					Global					People Soft						People Soft
Payroll/Human Resources			SMS Med Series4	GEAC		Ceridian	GEAC		SMS Med Series4				SMS Med Series4				
A/P																	
Materials Management	HBOC					Global					HBOC						HBOC
Cost Accounting		Self Developed (Analysis & DSS)		TSI Mainframe			TSI Mainframe		TSI AS400		Self Developed (Analysis & DSS)		TSI AS400				Self Developed (Analysis & DSS)
Contract Management																	SARMC McKesson HBOC
<b>Clinical Systems</b>																	
Physician Order Management																	Eclipsys
Order Entry	HBOC STAR		SMS Med Series 4	HBOC Plus 2000	TDS	HBOC Series	TDS	SMS Med Series4			HBOC STAR				SMS Med Series 4		HBOC STAR
Results Reporting		In-house/3M		OWS					OWS		Cerner						In-House
ADEs					Cerner		Cerner		Cerner				Cerner				
Clinical Documentation	Eclipsys	HBOC Care Manager			TDS	HBOC Care Manager	TDS										Eclipsys LifeServ Petronics
Laboratory	HBOC STAR	Cerner Pathnet	Cerner Pathnet	Sunquest	Classic	HBOC ALG	Classic	Cerner Milenium	Classic	Classic	Cerner Pathnet	Cerner Milenium	United Clinical Labs	Sunquest	Cerner Milenium	Sunquest	HBOC STAR
Pharmacy Hospital			Cerner MsMeds	Cerner MsMeds	Cerner MsMeds	HBOC Series	Cerner MsMeds	Cerner MsMeds	Cerner MsMeds	Cerner MsMeds	HBOC STAR	Cerner MsMeds	Cerner MsMeds	Cerner MsMeds	Cerner MsMeds	Medware WORX	
Surgery Management	RES-Q Healthcare	Per-Se' ORSOS					Omni-server				Medline Systems	Omni-server					
Patient Scheduling			HBOC Pathways					HBOC Pathways							HBOC Pathways		
Radiology	HBOC STAR		IDX		ADAC MARS II	HBOC Series	ADAC MARS II				HBOC STAR			ADAC MARS II		Per-Se' Consort	HBOC STAR
Transcription	Softmed	Dolbey		Softmed		Dolbey	Softmed	Medrite		Softmed		Dictaphone		Softmed		SARMC	Softmed



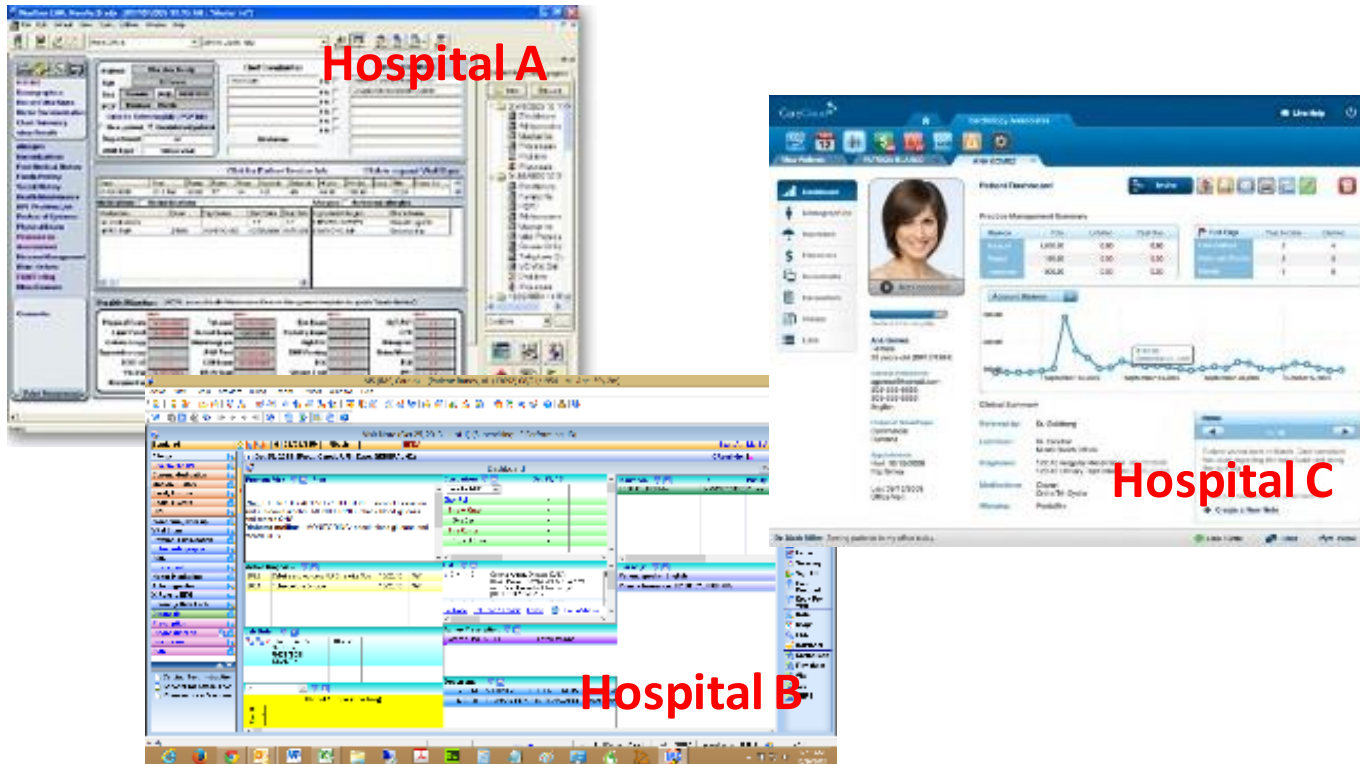
# After the Genesis Strategy

Operating Units	Silver Spring, MD	Columbus, OH	Port Huron, MI	Mt. Clemens, MI	Pontiac, MI	Livonia, MI	Ann Arbor, MI	Battle Creek, MI	Grand Rapids, MI	Muskegon, MI	South Bend, IN	Clinton, IA	Dubuque, IA	Mason City, IA	Sioux City, IA	Boise, ID	Fresno, CA
<b>Patient Administration</b>																	
Registration	McKesson HealthQuest																
Patient Accounting	McKesson HealthQuest																
Medical Records	Cerner Profile																
<b>Enterprise Resource Planning (ERP)</b>																	
General Ledger	PeopleSoft																
Payroll/Human Resources	PeopleSoft																
A/P	Lawson																
Materials Management	Lawson																
<b>Clinical Systems</b>																	
Clinician Order Management	CERNER CLINICALS																
Results Reporting	CERNER CLINICALS																
ADEs	CERNER CLINICALS																
Clinical Documentation	CERNER CLINICALS																
Laboratory	CERNER CLINICALS																
Pharmacy	CERNER CLINICALS																
Surgery Management	CERNER CLINICALS																
Radiology	CERNER CLINICALS																

● What is the improvement in Trinity?

# Common Digital Platform

- What if a patient at Hospital A needs to get a lab test at Hospital B and meet a specialist at Hospital C?



Hospital A

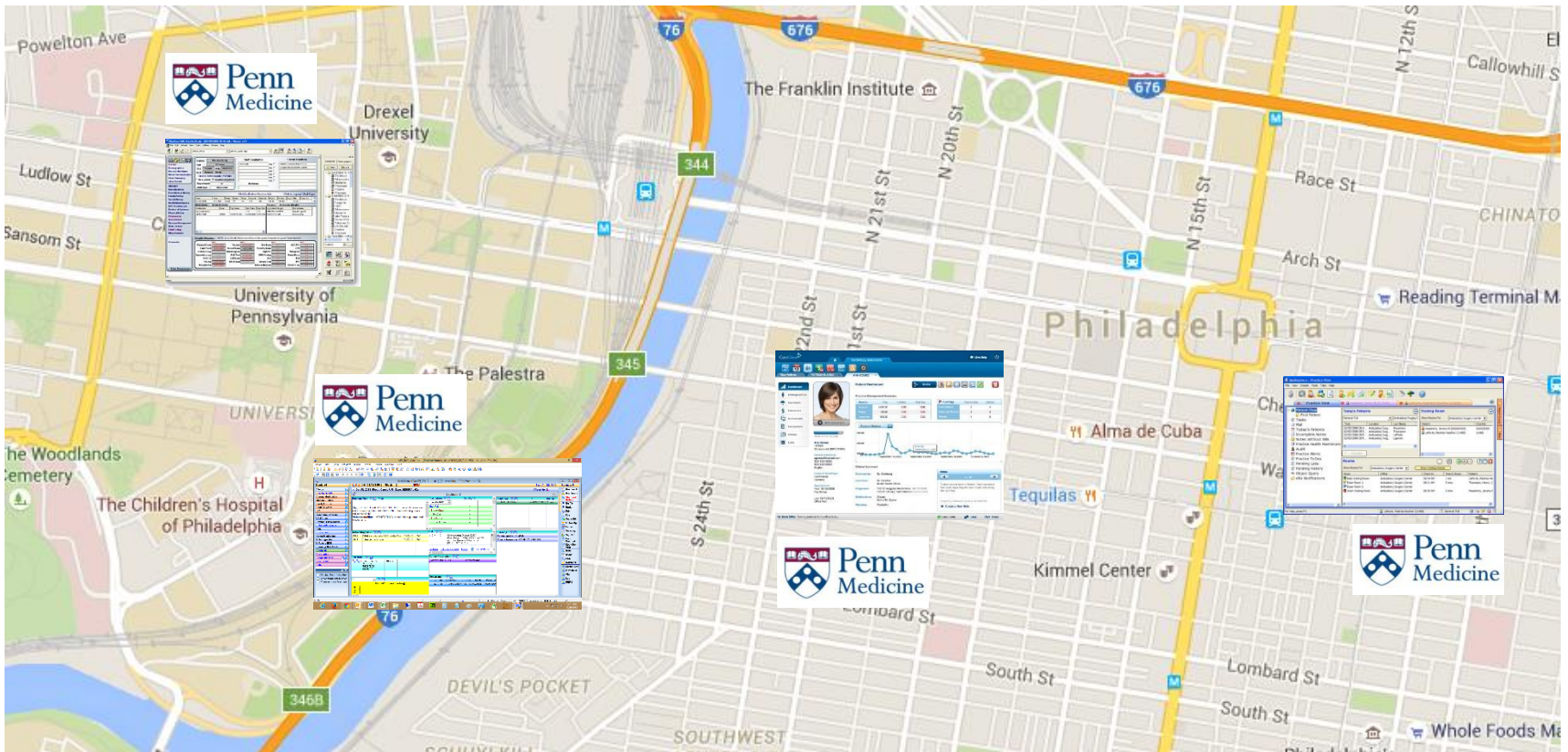
Hospital C

Hospital B



# Common Digital Platform

- What would happen if each hospital uses a different kind of EMR?



## Common Digital Platform (2/2)

- The Common Digital Platform reduces the costs
  - not only in managing day-to-day IT operations
  - but also in integrating the IT of acquired hospitals.
- It enables effective communication and coordination among hospitals and other care providers (e.g. specialists, primary care, labs).
  - reducing errors and wastes of time
  - improving the quality of care

## Trinity's M&A Strategy and Digital Platform

- Without the Common Digital Platform, Trinity could not have achieved the objectives of M&A.
  - to reduce costs in IT management (economies of scale)
  - to reduce costs in patient care
  - to improve the quality of care
- In addition, without the platform, the organization could have become so big and complex
  - that its cost could *increase* compared to before M&A.