LMI Analysis: An Often Forgotten Step Between Cocktail Napkin and Program Development

2016 ACCE Conference

Jim Lancaster, Ed.D.

Citrus College

Dean; Curriculum, Career/Technical, and Continuing Education
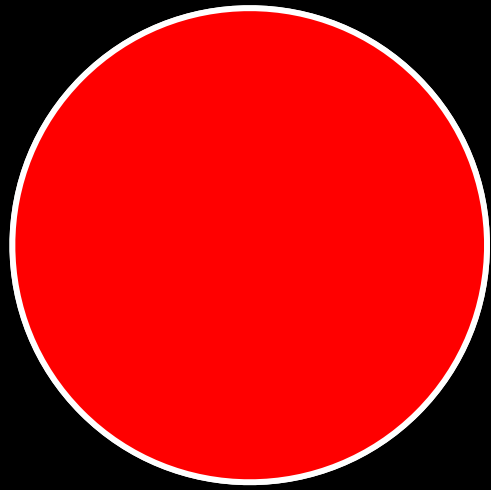
LA/OC Regional Program Approval Lead

Mission Critical

California Education Code (§66010.4) establishes the following mission and functions for the community colleges:

- As a **primary** mission, academic and vocational instruction at the lower division level for younger and older students.

- As a **primary** mission, advance California's economic growth and global competitiveness through education, training and services that contribute to workforce improvement.

- As essential and important functions, remedial instruction, and in conjunction with school districts, adult noncredit education, English as a Second Language, and support services that help students succeed.

- As authorized functions, community service courses and programs and institutional research concerning student learning and retention.
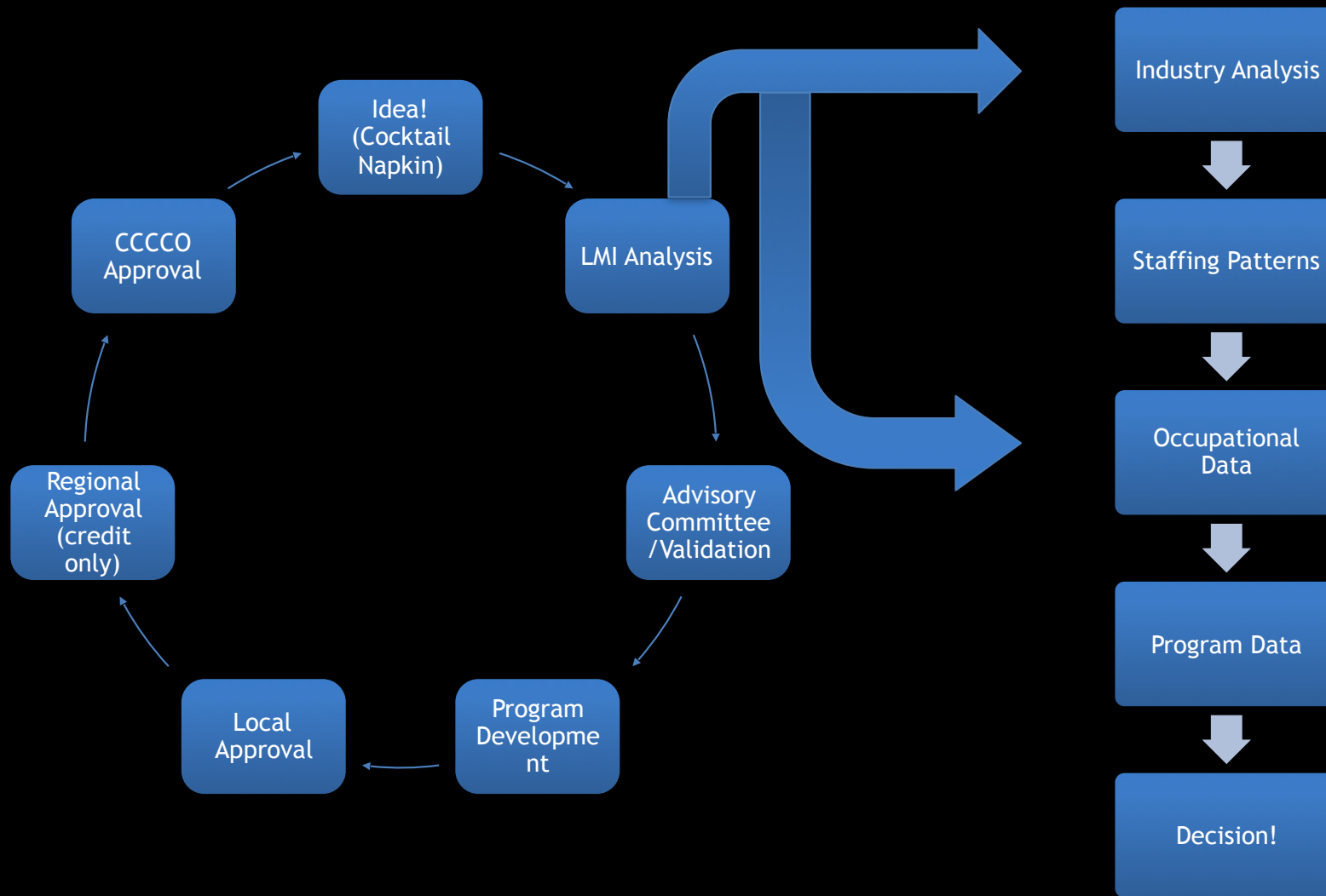
Why Is LMI Analysis Important?

60 Second Discussion

1 minute to discuss

The Process(es)

Idea! (Cocktail Napkin)

CCCCO Approval

LMI Analysis

Regional Approval (credit only)

Advisory Committee /Validation

Local Approval

Program Development

Industry Analysis

Staffing Patterns

Occupational Data

Program Data

Decision!

Specific Requirements for Noncredit Short-Term CTE Programs

- Provide evidence of high employment potential in one of two ways:
  - Identify area of instruction on list of occupational titles w/ high employment potential (www.labormarketinfo.ca.gov) ; or
  - Attach another data source containing current labor market or job availability data with explanation how it was verified.

  Source: PCAH (5th edition and 6th edition draft)

Industry Analysis

- North American Industry Classification System (NAICS)
  - 52 Finance and Insurance
  - 522 Credit Intermediation and Related Activities
  - 5222 Nondepository Credit Intermediation
  - 52229 Other Nondepository Credit Intermediation
  - 522292 Real Estate Credit

Industry Analysis:
Useful Data Elements

- Jobs
  - Start
  - End (projected)
  - Change
  - Percent Change
- Location Quotient
  - Start, End (projected)
- Number of Establishments

Industry Analysis:
Useful Data Elements

- Growth (jobs)
  - National Growth Effect
  - Industrial Mix Effect
  - Competitive Effect
  - Expected Change
- Earnings
- Demographic Information

NAICS	Description	2013 Jobs	2021 Jobs	2013 - 2021 Change	2013 - 2021 % Change	2013 Location Quotient	2021 Location Quotient	2015 Establishments	Ind. Mix Effect	Competitive Effect	Current Total Earnings
313	Textile Mills	7,121	4,952	(2,169)	(30%)	1.92	1.76	249	(2,525)	(394)	$42,891
314	Textile Product Mills	4,744	3,131	(1,613)	(34%)	1.27	1.01	211	(1,333)	(780)	$55,558
315	Apparel Manufacturing	47,748	35,666	(12,082)	(25%)	9.68	10.92	2,174	(21,439)	4,323	$43,087
316	Leather and Allied Product Manufacturing	2,150	1,502	(648)	(30%)	2.21	1.85	83	(601)	(274)	$45,974
324	Petroleum and Coal Products Manufacturing	4,784	4,546	(238)	(5%)	1.37	1.31	61	(579)	(163)	$177,851
334	Computer and Electronic Product Manufacturing	39,729	31,839	(7,890)	(20%)	1.19	1.02	668	(7,044)	(5,034)	$118,427
337	Furniture and Related Product Manufacturing	14,725	12,783	(1,942)	(13%)	1.23	1.10	642	(2,117)	(1,377)	$46,132
339	Miscellaneous Manufacturing	20,665	19,828	(837)	(4%)	1.07	1.01	1,053	(2,056)	(960)	$80,456
		141,665	114,246	(27,419)	(19%)			5,139	(37,694)	(4,661)	$75,240

Consider Supply Chain

- Jobs Multiplier
  - The total job yield to the region as a result of—and including—a single job added.
- Earnings Multiplier*
  - The total earnings created in a region as a result of a single dollar of new earnings.
- Sales Multiplier*
  - The total sales created in the region as a result of a single dollar of new sales.

* includes the yield and the initial dollar addition

Economic Impact

- Locally Traded
  - Driven by the local population
  - Imports
    - Examples: ????
- Regionally Traded
  - Increases wealth in the regional economy
  - Exports
    - Examples: ????

Staffing Patterns: Occupations Employed in the Industry

- Staffing patterns are used to identify the current and future workforce needs of a sector

Occupation Analysis

Occupations

- Standard Occupational Classification (SOC)
  - Defined by BLS
  - Example:
    - 31-0000 Healthcare Support Occupations
      - 31-1010 Nursing, Psychiatric, and Home Health Aides
        - » 31-1011 Home Health Aides
        - » 31-1014 Nursing Assistants
  - 2010 System
  - Revision in 2018
  - Go to http://www.bls.gov/soc/ for more info

Occupational: Key Data Elements

- Quarterly Census of Earnings and Wages (QCEW)
- Jobs
  - Historical, current, projected
  - Counts (gain/loss)
  - Projected change (%)
- Earnings
  - Median
  - 10/25 percentile
  - 75/90 percentile

Living Wage Calculator - http://livingwage.mit.edu/

Occupational: Key Data Elements

- Job Postings
  - Careful using this one
- Demographics
  - Age
  - Gender
  - Ethnicity/Race
- Inverse Staffing
  - Who employs these occupations

Program Data

- Regional Completers
- Classification of Instructional Programs (CIP)
  - 12 Personal and Culinary Services
    - 12.03 Funeral Service and Mortuary Science
    - 12.04 Cosmetology and Related Personal Grooming
      - 12.0401 Cosmetology/Cosmetologist, General
- SOC to CIP crosswalk
- National Center for Education Statistics
  - Integrated Postsecondary Education Data System (IPEDS)

Net Demand

- Look at historical data (one or two years back)
- Regional Demand-Regional Completers=Net Demand
- Other factors
  - Aging industry/occupation
  - High projected growth
  - High competitive effect
  - Etc.

When the data is not available...

- Advisories (regional or state)
- Trade/Labor Organizations
- Industry surveys
- Economic Development Reports/Scans
- Best to have multiple sources to inform the decision.

- Never Politicians ☺️

Making the Case

- Analyze and then Synthesize
- Keep it clear and succinct
- Support with data not a hunch, pet project, or someone's personal agenda.
- If the data isn't there find something else that is supported by strong LMI.

Resources

- CCCCO Resources
  - Understanding Labor Market Information Resources: Descriptions, Benefits, and Limitations
  - Making Use of Labor Market Information: Where to Find Data for Common Community College Decisions
  - Launchboard 2.0
  - DataMart
  - Doing What Matters
    - CTE Data Unlocked regional workshops

Resources

- Centers of Excellence
  - Industry Scans
  - Regional experts in LMI analysis
- Deputy Sector Navigators
- CTE/EWD Dean
- O*NET, EDD, BLS, Census Data.
- Third Party Vendors
  - EMSI
  - Burning Glass

Questions?

Jim Lancaster

jlancaster@citruscollege.edu

InnovateCTE@gmail.org