Research Brief:  
Effective Use of Labor Market Information  
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The California State Chancellor’s Office Vocational Education Research and Technical Advisory Committee

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Introduction: In February 2013, the Vocational Education Research and Technical Advisory Committee (VERATAC) voted to sponsor a study designed to identify the skills and competencies administrators and faculty need to effectively use Labor Market Information (LMI) resources. This brief presents key findings from this study, including information obtained through interviews with community college administrators and faculty who have extensive experience using LMI to inform program review, new program feasibility assessment and a range of other areas where LMI is commonly used. At the conclusion of the research, the findings were translated into a framework that practitioners can use to guide LMI research. This framework is introduced here along with LMI resources that the LMI interviewees use to gather information about the demand and supply for programs as well as about program outcomes, particularly in terms of students’ success in finding training-related employment.

Who collects and analyzes LMI? All community college programs are required to gather, analyze and use LMI data when working to initiate a new Career and Technical Education (CTE) or workforce program requiring approval from the State Chancellor’s Office (CO) of the California Community Colleges. In addition to submitting this information to the CO, colleges are required to present it to their regional consortia. Within colleges, LMI is required for program review, and information about student employment outcomes is now part of the federal financial aid requirements and also required for Perkins reporting.

At most community colleges, the collection and interpretation of LMI are part of the job description for many different positions. Most often, LMI is perceived as an important guide for those working in CTE, although there is increasing awareness that since most students will eventually need to find employment, LMI is relevant across all disciplines. At some colleges, institutional researchers collaborate with departments to analyze LMI. In other institutions, most of the responsibility falls on the shoulders of the vice president of instruction or dean of workforce education. In addition, most colleges maintain a core group of faculty members, often from CTE, who on top of meeting the basic LMI reporting requirements, are deeply engaged in collecting and using LMI.
Who are the ultimate stakeholders in a college’s use of LMI? LMI matters to everybody in the community colleges, but the main stakeholder is the student whose choices will be guided by community colleges’ ability to effectively use LMI to offer programs, courses and content that reflect what local and regional employers need. At the other end of the equation, the effective use of LMI strengthens the role institutions play in contributing to local economic development.

What did we study? VERATAC members identified colleagues who have extensive experience using LMI. These individuals were invited to participate in interviews about their LMI experience and expertise. Overall, 17 interviews were conducted with participation from community college representatives whose positions included: vice president of instruction, Center for Applied and Competitive Technologies (CACT) director, CTE regional consortium chair, dean of workforce development and CTE faculty. The participants were asked to draw from their own experience to address three questions:

1. For what purpose do you use LMI?
2. What questions do you ask to guide your LMI research?
3. What LMI resources do you consult?

What is the most frequent purpose for using LMI? Interviewees identified the following as the most frequent assignments requiring the use of LMI:

- assessment of the feasibility of a new program or the sustained need for an existing program
- program review
- curriculum development/updating
- grant development—an area that increasingly requires comprehensive use and analysis of LMI
- partnership development
- regional cluster analysis
- outreach to stakeholders (e.g., students, parents, high school counselors)
- accreditation

What LMI-related questions do experienced users ask? The experienced users were asked what LMI questions guide their decisions on launching, expanding, sustaining or contracting a program (or any other action they indicated using LMI to inform). They identified what initially seemed like a daunting list of questions. However, upon closer scrutiny, it appeared that there is a core group of questions that guide almost all LMI research – whether the purpose is program review or grant development, or any of the other areas where the interviewees identified using LMI. Furthermore, this core group of questions can be organized into four distinct categories, with each providing a different labor market perspective:

1. Demand based on secondary sources
2. Demand based on primary sources
3. Supply information
4. Employment outcomes
1. **Demand based on secondary sources**: The experienced LMI users identified Employment Development Department (EDD) data as the number one source of LMI that community colleges consult. To guide their own research of EDD and the many additional sources they use, the experienced LMI users engage in a series of inquiries including: What is the current and projected demand for a given occupation and what factors drive this demand; what is the employer profile in the region; what are the career opportunities; what salaries are available; and what skills, competencies and credentials are required for entry into these occupations? In addition to EDD, the interviewees use the following secondary sources for their research of demand: US Department of Labor (DOL), Economic Modeling Specialists International (EMSI), Burning Glass, Centers of Excellence (COE), O*NET Resource Center and regulatory information.

2. **Demand based on primary research**: Interviewees explained that they like to ground the findings they gather from consulting secondary sources on labor market demand (see above, 1. Demand-based on secondary sources) in their own information about the local and regional need for a particular occupation or occupational cluster. The theme of these inquiries is what local employers actually say they need now and next year. The sources the interviewees reported drawing on to gather this information included local employers, trade and industry associations, local workforce investment and advisory boards.

3. **Supply information**: Interviewees generally reported that they balance evidence of demand with information gathered on the current and projected supply of job-ready completers and graduates generated by local and regional community college programs and other training
providers. These experienced LMI users identified as their number one inquiry into supply: What current and planned programs are being offered by neighboring community colleges and other training providers, including private colleges? Resources they use to answer this inquiry include an environmental scan of other training providers in the region, outreach to similar programs through the California Community College Association for Occupational Education (CCCAOE) research into other training providers offering the same or similar types of training.

4. **Employment outcomes:** Experienced users of LMI data also explained that they ask many questions about the outcomes their programs and/or colleges generate. In particular, they want to know how many students found training-related employment, what kind of jobs the students secured and how much they are being paid. Up until recently, the Perkins core indicator data produced by the State Chancellor’s Office was the only source for this information, but lately additional resources have become available including the CTE Employment Outcomes Survey and the Wage Tracker.

In combination, the four perspectives provide a framework for a well-rounded review of LMI that can be applied to almost any LMI inquiry. These four LMI perspectives align secondary source information about demand with information gathered about local employers; this evidence on demand is then balanced with a consideration of local supply. The fourth perspective on employment outcomes connects the information about supply and demand to the actual employment and wage outcomes for students who participated in the courses or programs at the community college (or other nearby institutions).

**What skills and resources are required to use the 4-LMI Perspectives Model?** According to these interviews, effective LMI analysis should be conducted at many levels and requires a range of technical, research and analytical skills. The experienced LMI users consulted for this project explained that **technical skills** are needed to navigate the enormous amount of information available and to synthesize it into relevant data that can inform decision-making. Specifically, they explained that technical skills are needed to use sources such as EDD, EMSI, Burning Glass and O*-NET Online as well as new sources of information such as the CTE Employment Outcomes Survey and the Wage Tracker. **Research skills** are required to assess the reliability of the data sources, interpret demand projections, cross-walk occupational categories and develop and implement research instruments that can be used to gather information about local demand and supply. **Analytical skills** are needed to effectively launch the investigation by identifying the right questions to ask. As the information is collected, analytical skills are also needed to integrate information from different sources and perspectives, relate local to regional, state and national information and trends and to consider how changes in one factor, such as supply, may affect other factors.

**How can I use the 4-LMI perspective?** The range of skills required to fully use the 4-LMI Perspectives Model is wide and probably only rarely available as a package in most colleges and programs. However, by simply grounding LMI research in the 4-LMI Perspectives framework, colleges can ensure that they consider demand as well as supply perspectives and that program/employment outcomes are also taken into consideration. Further, some of the information discussed in this brief is readily available and can be collected on an ongoing basis. For example, industry associations often collect employment information from local businesses and some may use and be willing to share with their community college partners resources such as EMSI. Advisory committee members can be recruited for their ability to contribute various perspectives on local labor market demand and supply. Conferences such as the CCCAOE offer opportunities to meet colleagues who may be collecting relevant LMI information that...
they are willing to share. Further, two new sources of information on employment outcomes have recently become available (the CTE Employment Outcomes Survey and the Wage Tracker) and both are user-friendly and easy to interpret. At some colleges, the Institutional Research Office has capacity to support LMI research and at some institutions shared governance committees can serve as a venue for reviewing and discussion LMI data. Additionally, groups such as the Centers of Excellence are available to provide high-quality technical assistance to individual programs and colleges and the COE has published a wide range of studies specifically developed for community college users.

**Conclusions and next steps:** The purpose of this brief is to share information about the questions experienced LMI users ask and the resources they consult and to introduce the 4-LMI Perspectives Model as a framework for LMI data collection and analysis. As the next step in this project, VERATAC plans to identify and develop a limited number of tools to support LMI use. Our goal is also to stimulate conversations at colleges around the state about how LMI is used to guide decisions that ultimately help students pursue courses of study that are most likely to prepare them for training-related employment. To help colleges launch these conversations, we conclude this brief with a list of questions that practitioners can use to launch and frame conversations about LMI.

**Questions for discussion at your college/department:**

- Who at your college is involved in gathering, analyzing and using LMI? How did these individuals come to have this responsibility? How do they engage others in LMI-informed conversations?
- For what purposes do you use LMI?
- What LMI questions do you ask?
- Which of the 4-LMI perspectives (local demand based on your own data; demand described by secondary resources; supply; and employment outcomes) do you include in your LMI analysis? If you don’t include all four, can you think of how you may do so?
- What kind of LMI information does your college provide to students? Who at your college engages students with LMI information?
- What skills do you use when gathering and analyzing LMI?
- What additional skills do you want to develop and how can you develop them?
- Can you think of an upcoming project where you may try to use the 4-LMI perspectives in some way?

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**For questions and additional information:**
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