

An EIR must discuss ways in which a potential project could induce growth. A project may be growth inducing if it directly or indirectly fosters economic or population growth or the construction of new housing, removes obstacles to population growth, or requires or encourages the construction of new facilities that could cause significant environmental effects.

The analysis presented in this section discusses the potential for the proposed project to foster economic growth in the region. It also presents a discussion of changes in regional infrastructure that would be required to serve the proposed campus and whether these facilities could result in additional growth in the region.

The analysis is presented in terms of near-term and far-term growth. “Near term” is defined as from campus opening through 2010–11. Year 2010–11 data were used to characterize near-term growth. “Far term” is defined as 2010–11 through full development under the proposed LRDP. Full development (25,000 FTE students) was used to characterize far-term impacts. The year 2010–11 has been used as a cutoff because before that year, the level of development in the University Community may be low and campus-generated growth would be distributed in the existing regional communities.

6.1 NEAR-TERM GROWTH IMPACTS

The establishment of a large institution such as a major research university campus can result in a substantial growth in a region’s population and employment. A new campus would draw students from both the surrounding region and other parts of the state and country. Similarly, it would attract faculty and staff from the region as well as other parts of the state and country. In addition to the direct population changes that would result as these nonlocal students, faculty and staff, and their dependents relocate into Merced County, additional increases in employment and population could result as campus-serving businesses or other population-serving businesses move or expand in the area in response to increased demand. The major components of this economic growth are summarized below.

6.1.1 Campus-Related Direct Jobs

The campus would directly employ about 500 faculty and staff in the opening year 2004–05. This number would grow to approximately 1,676 jobs by 2010–11.

6.1.2 Campus-Related Indirect and Induced Jobs

In addition to the direct jobs on the campus, the operation of UC Merced would result in the creation of new indirect and induced jobs in the regional economy. Indirect jobs are those that would be created when the campus purchases goods and services from businesses in the region, and induced jobs are those that are created when wage incomes of those employed in direct and indirect jobs are spent on the purchase of goods and services in the region. Indirect and induced jobs are a result of the income-multiplier process.

Based on an analysis of the effect of expenditures by the campus and campus-related faculty, staff, and students in the regional economy (Merced County), the creation of the campus would result in about 1,940 indirect and induced jobs in 2010–11. Approximately 28 percent of these jobs would be, as expected, in wholesale and retail trade sectors, about 31 percent in services, about 25 percent in construction, and the balance distributed among other sectors (EPS, 2000).

In summary, in the early years of campus development (through 2010–11), the campus would add about 1,676 direct jobs and about 1,940 indirect and induced jobs to the regional economy.

6.1.3 Near-Term Population Growth

Environmental effects of campus-related growth would arise from the construction of housing, retail, and urban services that would be needed to serve the increased regional population and from the construction of new businesses triggered by the campus. In order to understand the likely effects from the development of new housing, it is important to characterize the population increase in the region that could occur because of the influx of new campus-related population into the region.

A portion of the direct jobs on campus would be filled by persons who are already residing in the area. However, this cannot be predicted with any accuracy. This EIR conservatively assumes that all of the faculty and staff would be “new” to the region. With respect to students, the EIR assumes that at least 10 percent of the students would be commuters, i.e., existing residents of the area.

A large influx of nonlocal population into the county in response to the indirect jobs and induced jobs associated with the University is not expected for several reasons. Merced County has a large number of employed residents who commute out of the county for work. It is anticipated that some of these persons would take up the new jobs created by the campus to change their commute pattern. In addition, the unemployment rate in the county has historically been high, and therefore a pool of local labor should also be available to fill these positions. Furthermore, it should be noted that a large number of these indirect and induced jobs would be in the retail and services sectors and would not require special skills. Therefore, it would be reasonable to assume that these jobs would be filled by persons already residing in the area who are unemployed or would like to change their commute, by students of the new campus, or by dependents and spouses of the persons who move into the area in response to the new direct jobs.

Assuming conservatively that 60 percent of these 1,940 indirect/induced jobs in 2010–11 are filled by local residents and students, and the balance by nonlocal persons, it is estimated (assuming a household size of 2.5 persons) that approximately 13,133 persons would move into the region in response to these jobs. Table 6-1 summarizes the increase in population due to the project in the near term.

**Table 6-1
Estimated Population Changes in the Near Term**

	Total	Local Residents	Nonlocal Persons	Dependents	Total “New” Population
Students	6,016	602	5,414	813	6,227
Direct Campus Jobs	1,676	0	1,676	2,514	4,190
Indirect /Induced Jobs	1,940	1,164	776	1,940	2,716
Total	9,632	11,398	7,866	5,267	13,133

6.1.4 Geographical Pattern of Near-Term Growth

Two primary factors would determine the manner in which the direct, indirect, and induced employment and population triggered by the University would be distributed within and outside the regional economy: (1) the pattern in which the students, faculty, and staff at the new campus choose to reside and spend their incomes, and (2) the availability of goods and services demanded by this population and the campus and the ability of the regional communities to supply these goods and services.

Students, faculty, and staff in general would be expected to live on or close to the campus. Residence patterns tend to be a function of a number of factors, including but not limited to the availability and cost of housing near employment and the willingness to commute. The LRDP provides on-campus housing for 50 percent of the students and faculty. Relying on the experience at other campus, it is assumed that in the near term, there would not be any faculty housing on campus. Student housing would be provided, and about half the students in 2010–11 would live on campus. The remaining student population and all the faculty and staff would live off campus. Other than faculty, staff, or students who may be already residing in the area and may choose to commute to the campus from their existing homes, very few of the new nonlocal students, faculty, and staff would be expected to locate into communities that are at a considerable distance from the campus. Because of the distances and road conditions, few persons would be expected to commute to the campus from adjacent counties.

Availability of existing housing and projected increases in housing stock are discussed in Section 3. Of the total existing (2000) housing stock in the County, about 30 percent is located in the City of Merced and about 18 percent in Atwater. Vacancy rates in these two communities vary from 3.6 percent in Merced (an estimated 755 housing units) to 14.2 percent in Atwater (an estimated 1,227 housing units). Additional housing is planned or proposed in the City of Merced. Housing is also available in other communities such as Planada, Livingston, Franklin, and Delhi. Based on the amount of existing and projected housing in the communities near the campus and the housing that would be provided on campus, there would be adequate housing in the near term to house the new population that would be added to the region by the proposed project.

6.2 FAR-TERM GROWTH IMPACTS

6.2.1 Campus-Related Direct Jobs

At full development under the proposed LRDP, the campus would employ about 6,248 persons.

6.2.2 Campus-Related Indirect and Induced Jobs

Based on an analysis of the effect of expenditures by the campus and campus-related faculty, staff, and students in the regional economy, when fully developed, the construction of the campus would result in about 6,000 indirect and induced jobs. Approximately 31 percent of these jobs would be in wholesale and retail trade sectors, about 37 percent in services, about 11 percent in construction, and the balance distributed among other sectors (EPS, 2000).

6.2.3 Other Campus-Related Induced Jobs

The direct, indirect, and induced jobs described above capture the bulk of the changes in employment that would result from the implementation of the LRDP. However, as explained in Section 3, additional growth is also probable. This growth is related to the “magnet effect” that has been observed at other UC campuses could occur, and the “incubator effect” of university campuses whereby businesses are established in communities near campuses by persons associated with the campus. These phenomena cannot be predicted or quantified but would be expected to occur in the far term.

To illustrate the potential effect, this EIR hypothesizes that 1,000 such jobs might be created. If it is assumed that about 400 square feet of office, R&D and/or manufacturing space would be required per employee, approximately 400,000 square feet of such uses would have to be developed in Merced area to house such activity, requiring development of between 50 to 100 acres of land. It should be noted that this figure of 1,000 jobs does not represent an estimate of the number of jobs that might be created because of the incubator and magnet effects, and the number of such jobs that might actually result (if any) because of these effects cannot be forecast. However, the amount of space required to accommodate such jobs, and the amount of new housing required to accommodate employees that would be new to the region would increase in direct proportion to the number of such jobs.

6.2.4 Far-Term Population Growth

As noted earlier, the EIR assumes that all direct jobs would be filled by nonlocal persons. Therefore, at full development there would be 6,248 nonlocal campus employees and their dependents who would be new to the county.

With respect to the indirect and induced jobs, assuming that only 40 percent of these jobs are filled by nonlocal persons, it is estimated that there would be 2,400 nonlocal employees and their dependents who would be new to the county.

Relative to the 1,000 jobs hypothesized as resulting from the incubator and magnet effects, it is assumed that half of the persons in those jobs would be new to the region and that the other half would be either residents of the area or students, and ex-faculty and staff from the campus. Again assuming a household size of 2.5 persons, about 1,250 persons would locate into the region in response to these 1,000 jobs.

Table 6-2 summarizes the projected increases in county population as a result of new nonlocal population at full development of the campus. It should be noted that these numbers represent a snapshot in time, i.e., full campus development. Because the campus would grow over the years, many of these persons identified as “new” would be, by the time of full campus development, long-time residents of the county.

**Table 6-2
Population Changes at Full Campus Development**

	Total	Local Residents	Nonlocal Persons	Dependents	Total “New” Population¹
Students	25,000	2,500	22,500	3,375	25,875
Direct Campus Jobs	6,248	0	6,248	9,372	15,620
Indirect /Induced Jobs	6,000	3,600	2,400	3,600	6,000
Employment associated with incubator/magnet effect	1,000	500	500	750	1,250
Total	38,248	6,600	31,648	17,097	48,745

¹ Sum of nonlocal students and employees and their dependents.

6.2.5 Geographic Pattern of Far-Term Growth

As discussed above, in the near term there would be some housing on campus for students, but all faculty and staff would live off campus. In the far term however, it is expected that 50 percent of the faculty and students would be housed on campus. Additionally, after 2010–11, the University Community planned adjacent to the campus would begin to develop so that at full development, it would accommodate the rest of the students, faculty, and staff. It should be noted that the University Community is sized to absorb the direct increase in population due to the campus. It does not mean that all campus-related population would necessarily live in the community. Some of the campus-related persons may choose to live elsewhere in the region, and non-campus-related persons could choose to live in the community. The objective of the University Community is to provide the necessary area to serve the demand for housing and retail and urban services of the new campus. Therefore, in the far term, all of the direct population added to the region by the campus could be accommodated by on-campus or new housing in the University Community.

As discussed in Section 3, the campus has been designed with the goal of accommodating the housing needs of 50 percent of the students and 50 percent of the faculty. In the event that the University attains its goals of housing 50 percent of the students and faculty at full development, it is estimated that about 25,345 campus-related persons would need off-campus housing. The University Community is sized to accommodate 30,782 persons. Therefore, the University Community could potentially have space to accommodate 5,440 persons associated with the indirect and induced employment that would be triggered by the campus. If this potentially available capacity in the community (for 5,440 persons) is compared to the nonlocal population that could move into the region in response to indirect and induced jobs (7,250 persons), it appears that about 75 percent of the population increase due to indirect and induced jobs could also be accommodated within the University Community.

The balance of the induced population (an estimated 1,800 persons) and the associated demand for housing and urban services would be distributed among the communities in the region, mostly Merced and Atwater, because developable lands that are already served by infrastructure are available. According to their general plans, the cities of Merced and Atwater have ample vacant land to accommodate additional population. The City of Merced has planned for the development of 2,980 acres of residential land between 2000 and 2015, which is calculated to be sufficient for the population of the City of Merced to grow by 11,600 persons (City of Merced, 1997).

The environmental effects of the construction of new housing within the University Community have been addressed in the EIR prepared for that project, and those impacts are also included in the analysis of cumulative impacts in the various sections of this EIR. It would be speculative for this EIR to estimate and report environmental impacts from the development of new housing in other areas in response to induced growth, because the exact locations of the future housing and retail or other facilities are not known at this time. However, if all the remaining campus-induced growth were to occur on land within the City of Merced SUDP and the City of Atwater SUDP that is not built up, it is estimated that approximately 122 acres of undeveloped land could be converted to urban uses to accommodate the additional new population. The magnitude of impacts to environmental resources cannot be estimated with any accuracy, but given the known resources in the area, impacts would relate to agricultural land conversion and the loss of vernal pools.

If the University Community is not constructed, then the impacts from development of the community would occur elsewhere in the Merced area. Traffic and noise impacts would be similar to the Full LRDP/Campus Only scenario, which distributed growth throughout the region. Other impacts cannot be assessed without more precise information about the location where the growth would occur.

6.2.6 Environmental Effects From Growth in Businesses/Urban Services

The University Community has been designed to provide adequate space for retail and urban services to serve the entire new population associated with the campus and also includes a business park to provide space for new businesses attracted to the region as a result of the campus and population growth. The University Community Plan allocates 20 acres to mixed use which includes retail (305,000 sf), office (130,650 sf), and some housing. It also allocates 25 acres to retail (411,000 sf), about 29 acres to office (776,320 sf), and about 22 acres for research and development (about 400,000 sf). These acreages within the University Community were developed based on the analysis of indirect and induced jobs by the sectors of the economy (presented in Section 6.2.2 above). These acreages, when fully developed with these uses, would employ 5,524 employees, which is a substantial portion of the 6,000 indirect and induced jobs that would result from the full development of the campus. (The remaining approximately 500 jobs would be in other sectors of the regional economy that would not require space within the University Community.) The environmental effects from the development of these campus-serving businesses and urban services in the community are addressed in the EIR prepared for the University Community and are also described in the cumulative impact analyses contained in each resource section of this EIR.

For goods and services not available in areas close by, the campus population would travel to other retail centers both within and outside the county. Consequently, a portion of the income-multiplier effect from the campus would be experienced in the area near the campus or within an area that is readily accessible to the campus population, and some of the indirect and induced growth would occur in a much broader region.

6.3 GROWTH TRIGGERED BY THE PROVISION OF INFRASTRUCTURE

Growth can also be triggered if infrastructure to serve the campus is constructed with excess capacity. Extensions of the regional infrastructure systems would be necessary to serve the campus. These would include electricity, natural gas, wastewater, water (as backup) and new roadways. To the extent that the new infrastructure is designed to serve the campus and the University Community (where both utilize the same service) and no excess capacity is provided, additional growth beyond that described in the analysis above would not be triggered. However, the Rural Residential Center (RRC) area along Lake and Bellevue Roads currently relies on on-site septic systems and wells for potable and irrigation water. If excess water and wastewater capacity were provided by the City along these roads and points of connection for RRC units were provided, the provision of infrastructure to the campus could trigger growth in the RRC area. Although the University Community Plan policies would prohibit over-sizing of infrastructure, and the County would continue to implement a Revenue Sharing Agreement with the City of Merced that limits development density of the RRC area to be no greater than one dwelling unit per acre, the University cannot guarantee that all of these measures would be implemented, and therefore it is considered possible that the provision of infrastructure could trigger growth in the RRC area.

6.4 IMPACTS AND MITIGATION

6.4.1 Standards of Significance

The following standards of significance are based on Appendix G of the CEQA Guidelines. For the purposes of this EIR, impacts are considered significant if the implementation of the LRDP would

- induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

6.4.2 Project Impacts and Mitigation

- 6-1 Implementation of the LRDP would induce substantial economic and population growth in the region, and would result in the construction of additional housing. This growth is expected to result in *significant* environmental effects.**

As explained above, the campus would result in substantial growth inducement as follows:

- The proposed campus would result in a substantial increase in employment and population in Merced County.
- The majority of the effects of this growth would occur on campus and in the University Community, which has been designed specifically to absorb the campus-related growth. All of the direct population and economic growth due to the new campus would be accommodated on campus and in the University Community, and the environmental impacts of this growth are addressed in the EIRs prepared for both projects and in the cumulative impact analyses in both EIRs.
- A portion of the induced growth could potentially not be absorbed by the campus or the University Community and can be expected to occur in other communities nearby. The environmental effects of this growth cannot be reasonably characterized.
- The conclusions noted above apply to the full development of the campus. In the early years, when the housing on campus may be limited and the University Community would not be developed, the growth effects of the campus would occur within existing communities. The communities near the campus have excess housing and urban services to absorb this early growth.
- The analysis presented above and the conclusions drawn are based on the currently projected growth in enrollment on the new campus. To the extent that enrollment grows slower or faster than the projections, the related growth levels would vary proportionally and would occur earlier or later than forecast in this section.

Mitigation Measures

None feasible beyond those identified in Section 4 of this EIR.

This impact is considered *significant and unavoidable*.

REFERENCES

EPS, 2000. Merced County University Community Plan, UC Merced. Economic Background Report (EPS #9703). March.

City of Atwater, 2000. City of Atwater General Plan. Adopted July 24.

City of Merced, 1997. Merced Vision 2015 General Plan. Adopted April 7.